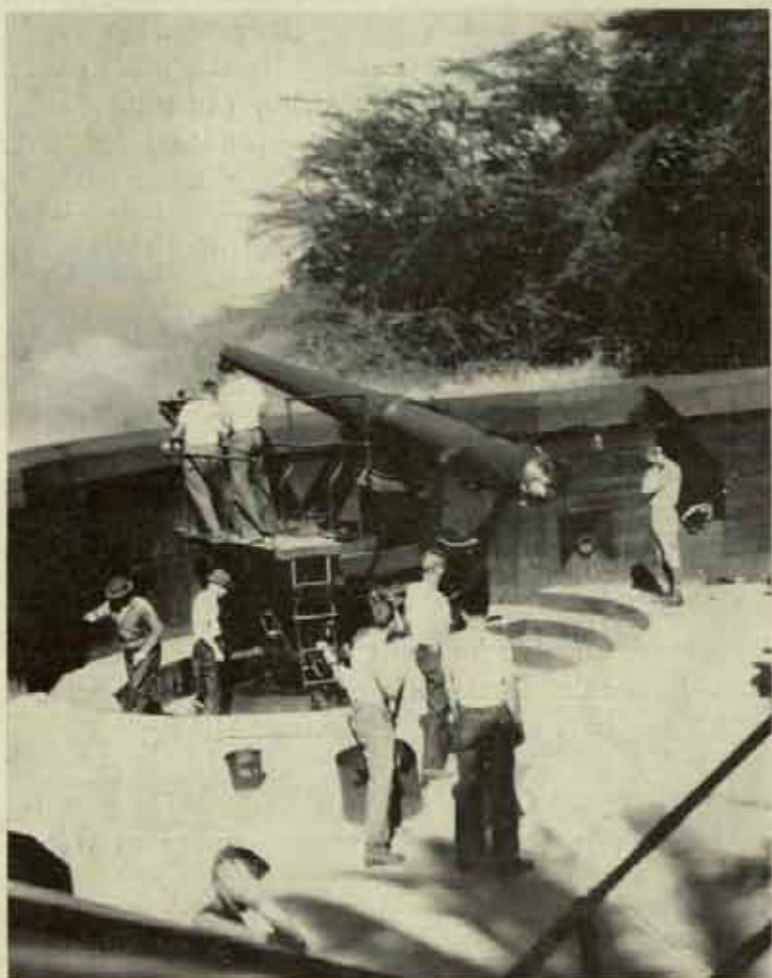


COAST ARTILLERY JOURNAL



BATTERY "A" 16TH COAST ARTILLERY IN ACTION

SEPTEMBER-OCTOBER, 1935

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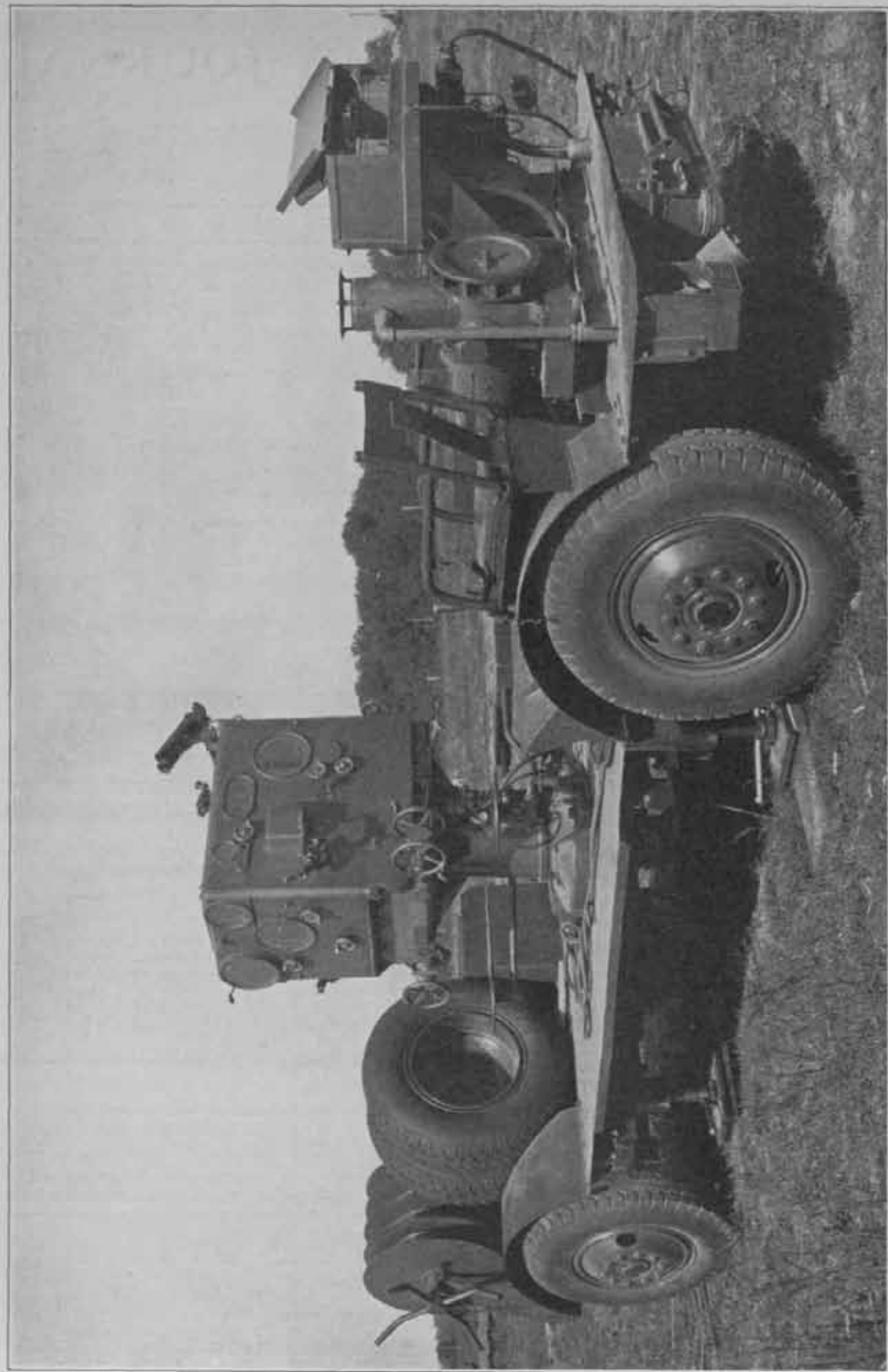
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Anti-aircraft Director on Mobile Mount



Some Facts About Bombardment Aviation

By MAJOR CLAIRE L. CHENNAULT
Air Corps

(Photos Courtesy Army Air Corps)

FOREWORD. The statements contained in this article represent the author's personal opinions, and are not necessarily reflections of the views held by any other officer or by the War Department.

MUCH has been written concerning the threat of aerial bombardment—how a battleship may be destroyed by a single bomb; a city made uninhabitable by a series of bombardment raids; railway lines cut, and industry paralyzed; and how bombardment aviation, once in the air, cannot be stopped—but very little is known regarding the scientific basis for such claims. The purpose of this article is to present, as briefly as possible, the technical and tactical principles which serve as a basis for the teaching of modern bombardment aviation.

Bombardment aviation is defined as "that component of the Air Force whose primary function is to destroy objectives on land or sea by means of projectiles dropped from airplanes." The mission of the Air Force is sometimes stated as "Acting in concert with the Army and Navy, to conduct operations designed to break the enemy's will to resist." In view of these two definitions, it is apparent that the objectives for aerial bombardment are practically unlimited; they may include civil populations, industrial establishments, political centers, lines of communication and transportation, Naval forces, sea-borne commerce, and military establishments and personnel.

Attacks upon the hostile armed ground forces will usually constitute the most unremunerative and most undesirable method for employing bombardment. Normally, the armed ground forces are dispersed, have available underground shelter, and have been trained to maintain morale in the face of hostile attacks. The outstanding

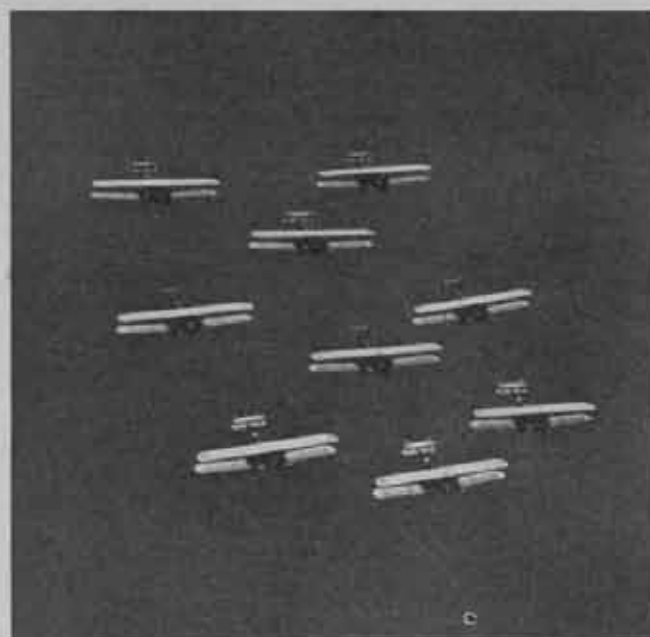
characteristic of bombardment aviation is its ability to avoid conflict with the armed ground forces in order to strike directly at the social, economic and political life in the interior of the hostile state. Taking advantage of this characteristic, bombardment aviation is most profitably employed when directed against those centers of civil population, industrial establishments, and lines of communication and supply which contribute to the enemy's ability and will to resist.

In contrast to armed ground forces, armed Naval forces offer a desirable objective for bombardment. The enemy is concentrated in vessels which are vulnerable to aerial bombardment; he is fully exposed and does not possess sufficient speed to provide immunity from attack. It is not expected that any naval force will ever deliberately expose itself to attacks by hostile land-based aviation. The weaker fleet, retiring to an area protected by friendly land-based aviation *will not* be pursued by the stronger fleet.

Bombardment aviation must be provided with a suitable airplane, properly equipped, in order to attain the maximum of its potential power. Basically, the bombardment airplane should be designed to transport and deliver accurate bomb fire upon any designated target. The most desirable characteristics of a modern bombardment airplane are sometimes listed as follows:

1. Range.
2. Speed.

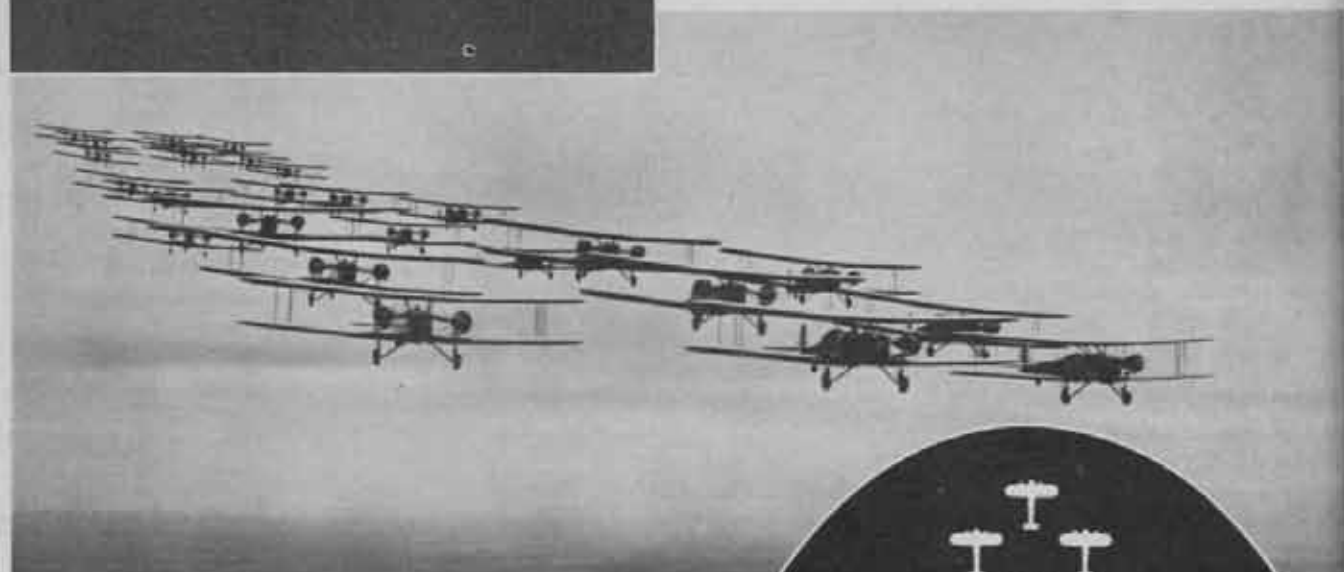
Attacks upon the hostile armed ground forces will usually constitute the most undesirable method for employing bombardment.



Paper of March 4, said: "The range of territory on the continent from which air attacks would be launched against this country is constantly extending and will continue to extend."

This new conception of an "Air Defense Frontier" makes necessary radical changes in the plans for the defense of every country in the world. A hostile air force may be based in regions inaccessible to the Navy, or may be so strong and well secured that the Navy cannot operate within its radius of action. In either case, the Navy cannot serve as the first line of defense. Counter air force action only can be employed to oppose such a threat and counter air force operations must be the responsibility of the land-based Air Force. Today, the frontier for this Force extends one thousand miles out from our sea coasts

LEFT—Javelin Formation.



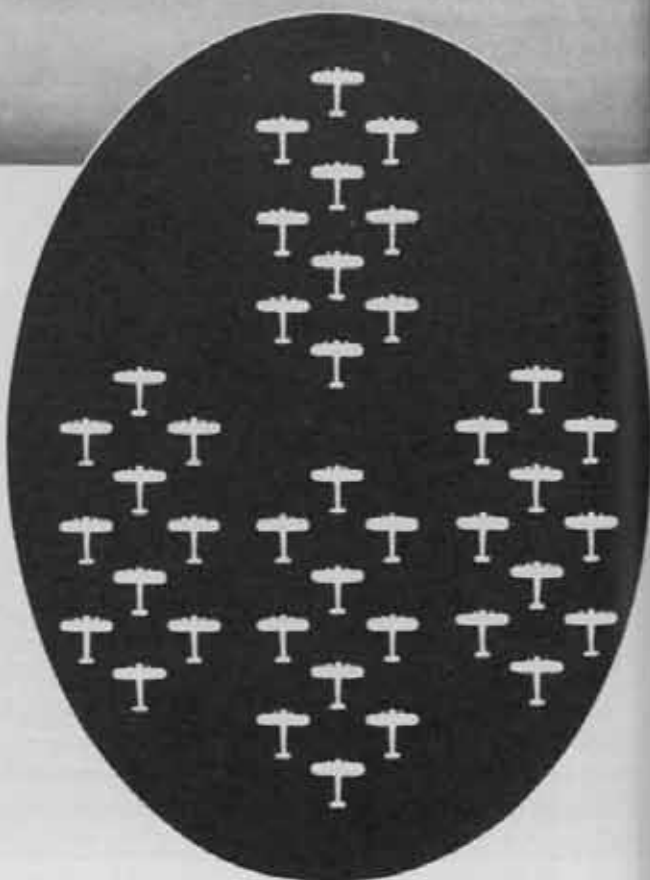
ABOVE—Close Group Formation.
RIGHT—Group Wedge Formation.

3. Load capacity.
4. Ceiling.
5. Flying qualities.
6. Ease of maintenance.

The range of the bombardment airplane has been increased within the past three years from a few hundred miles to more than a thousand. Technical developments indicate that this range, with an effective bomb load, may be greatly extended within the next two years. The effect of this increase in range of the bombardment airplane is to extend the frontiers of every nation in the world, in so far as the national defense is concerned.

Last summer during a speech on air armament, Stanley Baldwin, acting Prime Minister of Great Britain, said: "Since the day of the Air, the old frontiers are gone; and when you think of the defense of England, you no longer think of the white cliffs of Dover, but you think of the Rhine. That is where, today, our frontier lies."

Prime Minister J. Ramsay MacDonald, in his White



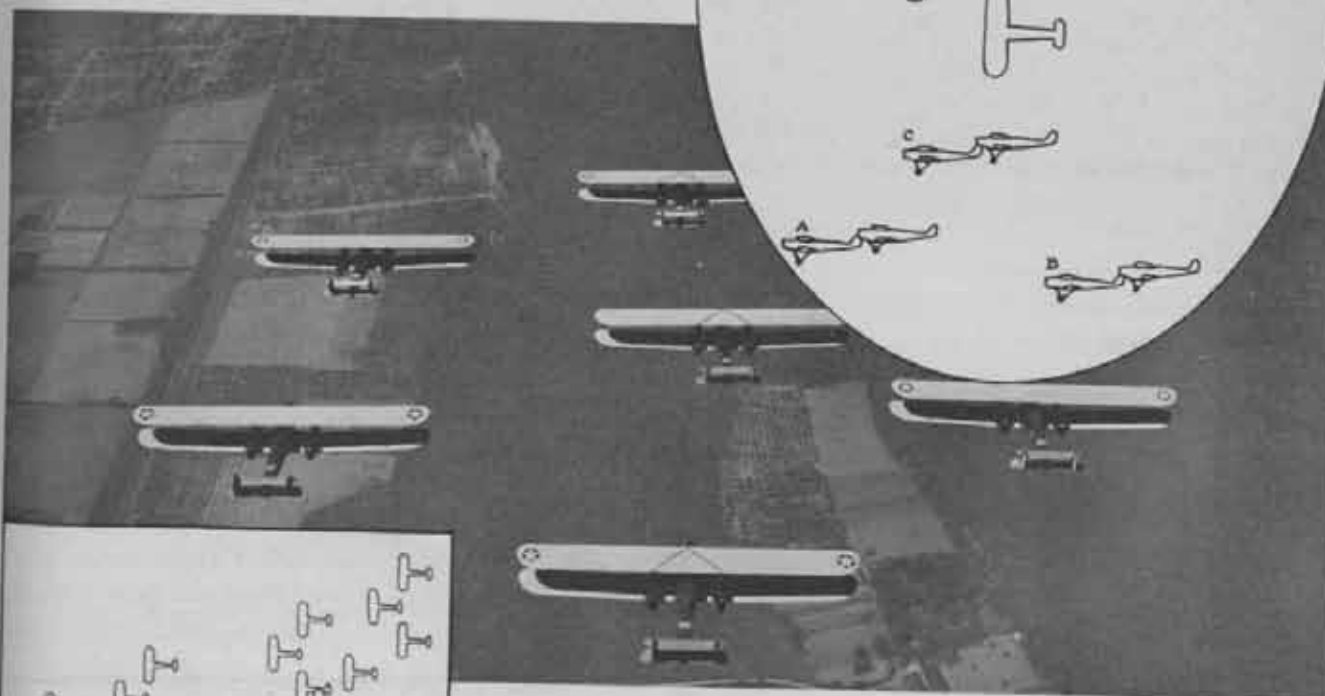
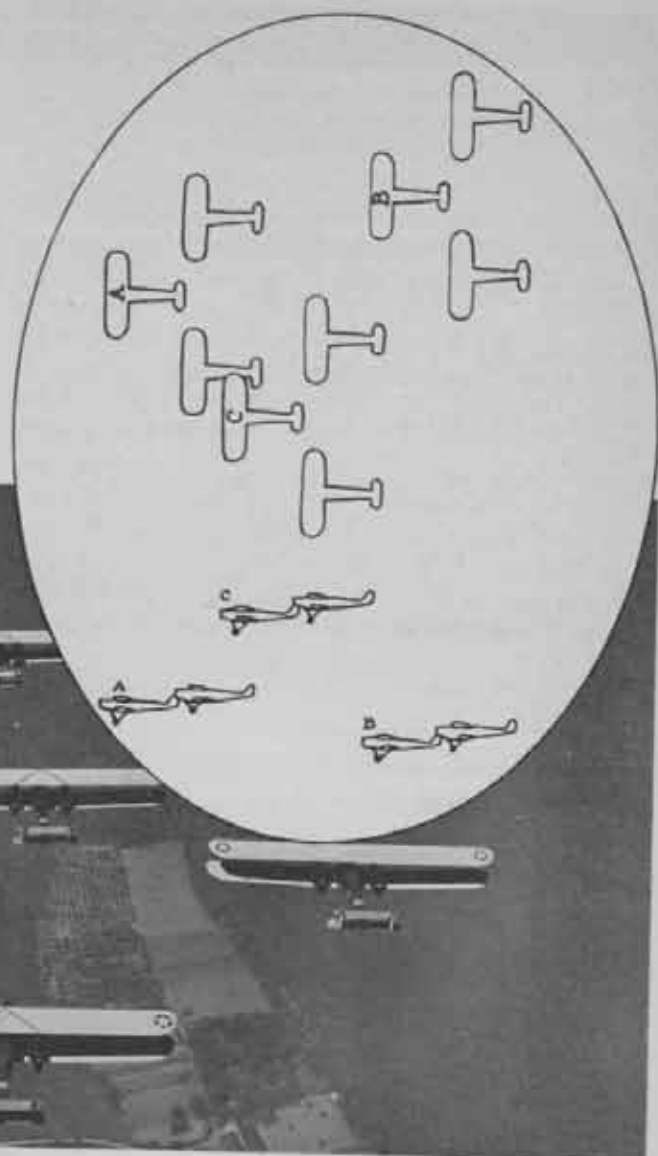
and international boundaries; tomorrow, this distance may be extended to two thousand miles or more.

The speed of the bombardment airplane has been doubled within the last five years. Speed enables the bombardment force to strike rapidly at all ranges and to strike often at short ranges. It also contributes greatly to the defense of the bomber.

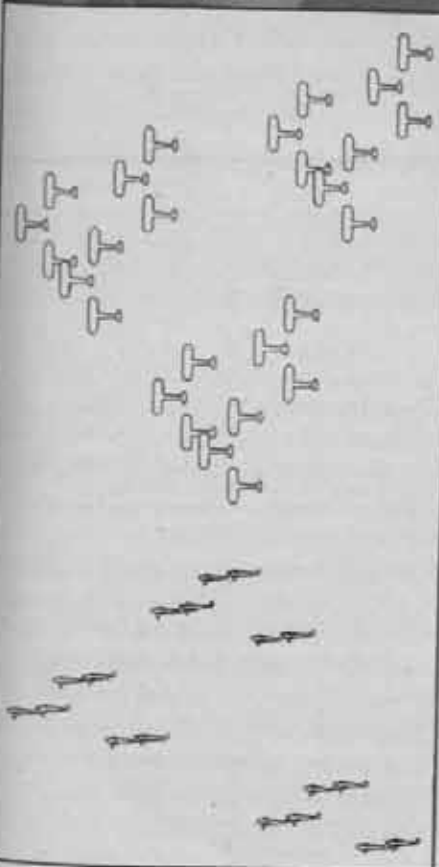
The load capacity of bombers has remained stationary, for general service types, in this country for several years. A number of foreign bombers are known to be capable of carrying as much as four tons of bombs.

The ceiling of the bomber has also been greatly in-

RIGHT—Squadron Stagger Formation.



LEFT—Group Stagger Formation.



creased during the last five years. This increase is the result of the increase in range and speed of defensive weapons and the desire to escape observation from the ground. While the increase in ceiling contributes to the security of the bomber, it adds to the difficulties of effective operations. At high altitudes, operating personnel are subjected to decreased atmospheric pressure, decreased oxygen supply, extreme cold, and difficult navigational problems.

Among the necessary items of equipment for the modern bomber are:

1. Accurate instruments for flight and navigation under all conditions of weather.
2. Accurate bomb sights for all altitudes.
3. Efficient bomb racks and release mechanism for all types of bombs.
4. Defensive armament.
5. Oxygen apparatus and heating devices.

Many flights have been made where the take-off, the flight in the air, and the landing have been successfully accomplished with the pilot entirely "blind"; that is, guided solely by instruments installed in the airplane. In fact, "blind" flying has become a matter of routine training for all Air Corps pilots. Long avigational flights are regularly made with the pilot

guided solely by instruments.

Very accurate bomb sights have been developed recently. Old standards of accuracy for bombing at all altitudes and particularly for bombing from very high altitudes, have been rendered obsolete.

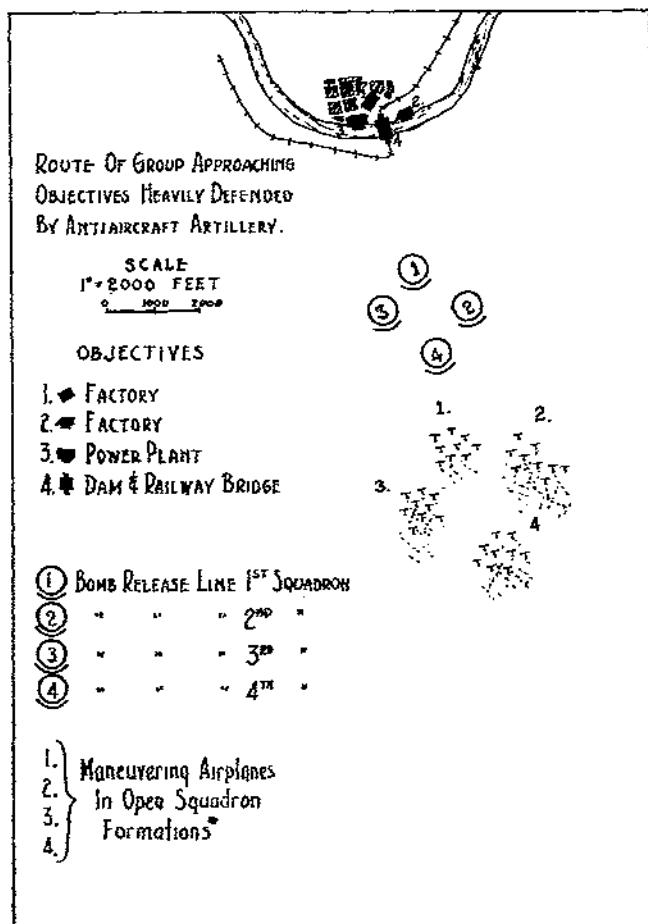
Improved racks and bomb release mechanism have added greatly to the efficiency of this equipment. The delay in functioning of the release mechanism has been eliminated.

The bombardment airplane is defended by a number of machine guns. The usual arrangement is to have one pair of flexible guns firing forward, one to the rear in the upper hemisphere, and one to the rear in the lower hemisphere. While this arrangement of guns does not provide a complete defense for a single airplane, it is assumed that bombardment will operate in formations and that a scheme of fire involving mutual support will be employed to defend the formation.

Bombardment units are trained to fly in the following defensive formations:

1. Squadron formations;
 - a. Javelin formation.
 - b. Stagger formation.
2. Group formations;
 - a. Wedge formation.
 - b. Stagger formation.

The accompanying diagrams illustrate the arrangement of individual airplanes and elements in these formations.



Normally, the bombardment squadron will have nine or ten airplanes in formation, while the group will consist of from twenty-seven to forty airplanes.

Aerial bombs for tactical use by bombardment aviation belong to two classes:

1. Explosive;
 - a. Demolition.
 - b. Armor piercing.
2. Chemical;
 - a. Incendiary.
 - b. Gas.

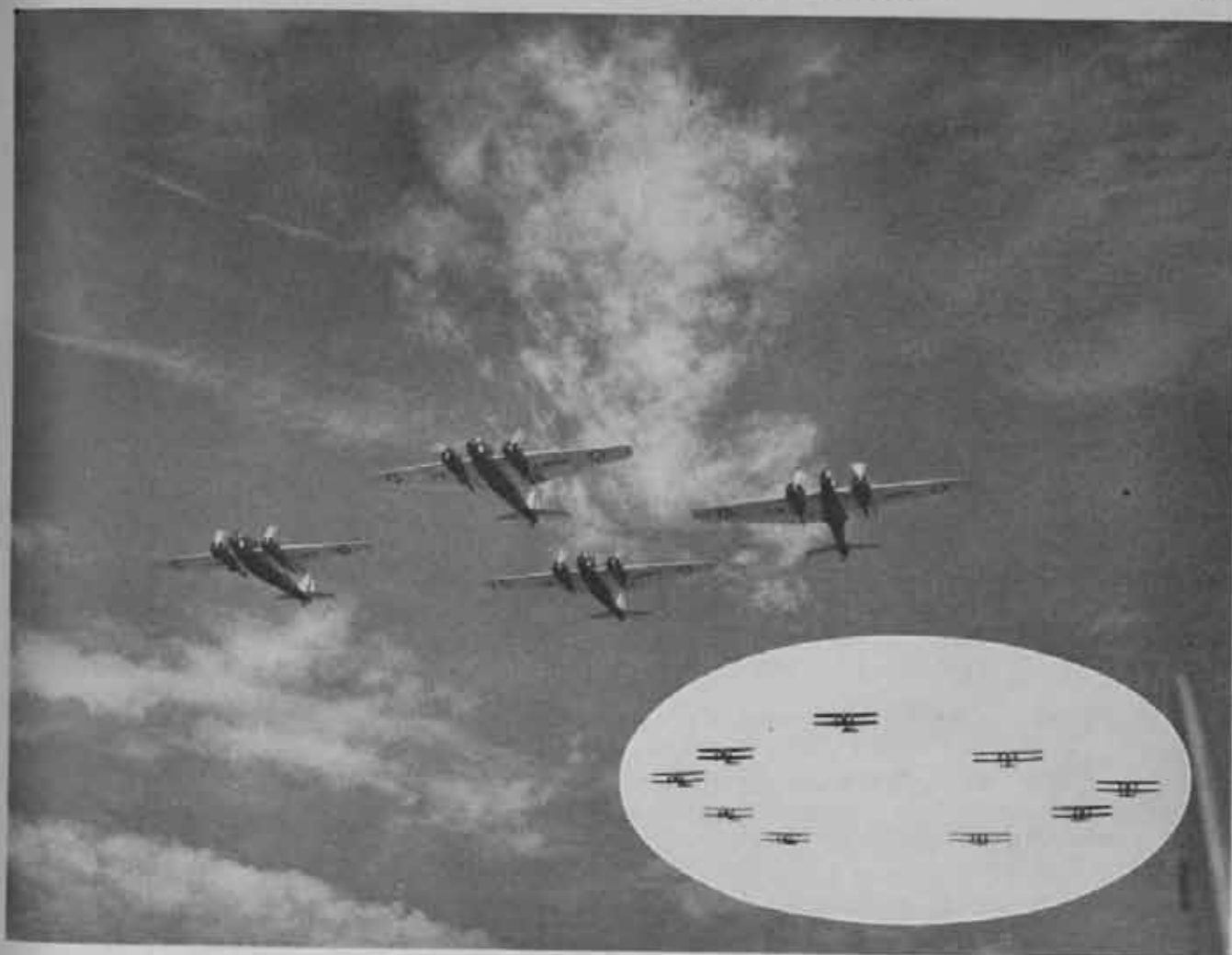
The thin-walled demolition bomb containing approximately 50% of its weight in explosive material is the most important type of explosive bomb. It is usually fused in both nose and tail, and equipped with detonators designed to produce instantaneous or 0.1 second delay action. The demolition bomb is most effective when employed against material structures of great strength such as modern buildings, bridges, concrete work, and marine vessels. They are least effective when employed against personnel and well-dispersed targets which require fragmentation effects.

A bomb released from an airplane in level flight follows a curved path through the air. A bomb released in a vacuum, from any altitude and at any speed, would strike the ground directly beneath the position of the carrier at the instant of impact, if the airplane continued in straight flight after the release. In practice, the forward motion of the bomb is checked by resistance of the air. Therefore, in determining the point at which a bomb must be released in order to strike a target, the speed and altitude of the airplane and the "lag" of the bomb must be considered. The following table, which is approximately correct, shows how these factors affect the horizontal distance between the "point of release" and the target:

Speed Miles Per Hour.	Altitude Feet.	Point of Release Horizontal Distance From Target. Feet.
100	5,000	2,540
100	10,000	3,475
100	16,000	4,200
150	5,000	3,680
150	10,000	5,100
150	16,000	6,200
200	5,000	5,200
200	10,000	7,100
200	16,000	8,900

(The figures in the third column of this table are for the normal service-type bomb. They would not be correct for gliding or parachute bombs, or other special types. They apply only to level flight bombing.)

The immediate effect of increasing the speed or altitude of the bombardment airplane is to increase the horizontal distance between the point of release and the target, thereby increasing the area to be defended by gun fire. An increase in speed or altitude imposes no penalty upon the bombardier who determines the point of release mechanically by making the proper adjustments on the bomb sight. These adjustments or settings must be made with the bomber in level flight, but an experienced bombardier can make them in a very short time—one minute or less.



A Formation of Martin Bombers. INSERT—Elliptical Formation.

The tactics of bombardment units depend upon such variable factors as:

1. Nature and size of the target.
2. Meteorological conditions.
3. Degree of destruction desired.
4. Strength and disposition of hostile defensive weapons.

A small target requires precision bombing, while an area target may be attacked by the formation bombing method. In the first case, each airplane sights and releases its bombs individually; in the latter case, all airplanes in rear of the leader release upon his signal. Bombs for precision targets are released singly or in salvo; for area targets, they are usually released in trail at predetermined intervals. Bombs may be released from either defensive or route formations in attacks upon area targets. Precision targets such as naval vessels, bridges, small dumps and buildings, usually require a direct hit for destruction; area targets such as large industrial plants, supply depots and railway terminals, require a distribution of bombs for maximum effect. Precision bombing requires daylight operations, while most area targets may be attacked at night.

Bombardment may be forced to make low altitude attacks by low clouds or very "thick" weather. The low altitude attack has the advantage of greater accuracy but requires the use of a fuse with a delay of at least ten seconds in order to permit the airplane to fly out of the danger radius of large bombs. Bombs dropped from low altitude at high speed seldom penetrate the surface but roll or bounce for some distance before coming to rest. Targets which require penetration of the surface for destruction cannot be attacked effectively by the low altitude method. Another disadvantage of the low altitude method is that defensive fire from ground guns should be far more effective since machine guns of all calibers can be used in the defense. However, the conditions of poor visibility which make low altitude attacks necessary, will usually serve to conceal the approach of the bombardment airplane so that the minimum time for sighting and firing defensive guns is available. The low altitude method may be employed occasionally as a surprise or for the purpose of forcing the defense to devote a large part of its effort to the maintenance of guns which are effective at short ranges only.

The number of bombs and the number of airplanes required for a particular mission depends largely upon the



Javelin Formation.

degree of destruction desired. The destruction of the target may depend upon contingent results such as the causing of explosions, starting fires or collapse of basic structures. The complete destruction of the target by bomb effect alone will seldom be required in order to obtain the desired effect.

The "destruction" of industrial plants or centers is effected when all useful work is suspended. This result may be obtained by actually destroying vital machinery or by forcing personnel to cease working at the machines. The "destruction" of a city does not require the disintegration of all structures in the city limits; it is accomplished when the industrial operations in that area are so paralyzed that the city can provide no further aid to the hostile cause. The use of bombs with long delay action fuses or persistent chemicals may paralyze industry and communications, even though very little physical destruction occurs. An industrial center may be paralyzed by destroying its water supply or its power plants or by exposing the population of the area to contagious diseases. Bombardment accomplishes its mission when it destroys

the military importance of its target, regardless of the actual physical condition of the structures composing the target.

Bombardment tactics are affected by the strength, disposition and activity of hostile defensive weapons. Bombardment units fly a close, defensive formation in the presence of hostile pursuit and an open, route column formation when exposed to antiaircraft artillery fire. It is not expected that ground guns will fire while pursuit is engaged in attacking a bombardment formation.

There are many possible variations in the methods for attacking a target heavily defended by antiaircraft artillery, either by day or by night. When the formation attack method is employed, individual airplanes are flown at such distances as to permit the maximum of maneuverability. The approach to the target is made with all individuals "weaving," changing direction and altitude rapidly and erratically, and with no two airplanes within the effective radius of a single shell burst. The flights of the squadron fly at different altitudes and the withdrawal from the defended area may be made by either of several

methods. The accompanying diagram illustrates a possible method of approach to an area target by a group of four squadrons.

For night operations against targets heavily defended by antiaircraft artillery, the employment of several airplanes approaching the target simultaneously at different altitudes and from slightly different directions will be normal. The approach and withdrawal of all airplanes may be confined to a ninety degree angle so as to avoid effective illumination and fire from the majority of the antiaircraft units and in order to throw a considerable overload on the equipment and personnel within effective range. Muffled and geared engines may be used by the attacking force in order to reduce the sound from them. Single airplanes with unsilenced engines may be flown at a low altitude and high speed in the area determined for the approach to the target. Another method which may be used to confuse the defending force, is the gliding approach. Airplanes with throttled motors may glide in to the bomb release line from extremely high altitudes. This method may be used in combination with high flying airplanes with unmuffled engines. The glide method of approach facilitates the low altitude bomb attack particularly.

The bombardment airplane is strictly an offensive weapon, but it fights *in its own element* only on the defensive. It is not designed or intended to seek combat in the air. When forced into combat by a hostile airplane, it adopts one of the defensive formations illustrated in the accompanying diagrams. These formations are adopted solely for defense against an aerial attacker and are not assumed in the presence of effective antiaircraft artillery fire or for precision bombing operations. Having assumed a defensive formation, the bombardment unit depends upon mutual fire support, volume of fire and its characteristic of speed for its defense.

Reference to the diagrams impresses one with the great volume of fire available for the defense of a bombardment unit. Each airplane in the formation is capable of carrying three pairs of machine guns, a total of sixty flexible

machine guns for a ten-plane squadron. However, it will seldom occur that more than 20 of these guns can be directed upon a hostile force attacking from any given direction. This limitation is due to the fact that the traverse and elevation or depression of each pair of guns is restricted by the structure of the airplane. The effectiveness of bombardment's volume of fire is further reduced by reason of the fact that flexible gun fire from an airplane is rarely effective at ranges greater than 100 yards. The size of the individual airplanes prevents the simultaneous delivery of effective fire upon any one point by all the units of the formation.

The speed of the bombardment unit contributes to its defense by reducing the time available for combat and by making it more difficult for an attacking force to engage in concerted attacks with elements approaching simultaneously from several directions. Speed also reduces the probability of the defending force intercepting the invading bombardment unit.

It is generally accepted that bombardment will enjoy a considerable superiority of fire in any combat where hostile pursuit employs the World War method of diving to the attack with small units firing successively. Under such conditions the bombardment force should succeed in penetrating to its objective.

The greatest danger from bombardment aviation lies in the possible failure of military authorities to appreciate its power. It may prove of decisive importance in any situation where adequate measures for effectively opposing it have not been taken.

These measures must be taken in peace time; the declaration of war is too late for their initiation. Essentially they consist of the organization of an efficient aircraft reporting service, the maintenance of an adequate number of defensive weapons of modern types, the preparation of detailed passive measures of defense, and the maintenance of an effective land-based Air Force capable of, and charged with the responsibility for, conducting both offensive and defensive aerial operations.

THE MOST IMPORTANT DEFENSE

..... for the US or any other nation is antiaircraft defense. This alone will limit the effectiveness of an airplane in any future war, but the question is: how much? Against the antiaircraft defenses of the World War modern airplanes could lay an industrial nation to waste. But the new guns are different. Each battery is controlled by a central station. The equipment consist of (1.) a height finder, which measures the height of an airplane and transmits it to (2.) the director, a computing device that automatically computes and transmits to the guns the data for laying them on the correct "future" position of the advancing plane. The fuze of the projectile is then set to burst at that "future" position. Each gun has a vertical range of 25,000 feet and can fire twenty-five shots per minute.

(Reprinted from Fortune, September, 1935)

Who Started Such a Mess?

By CAPTAIN E. F. ADAMS
Infantry

THERE are countless reasons why civilians believe Army officers are crazier than they actually are. The following experience no doubt justifies the opinion of one particular civilian:

He was apparently a bright young man. He worked for a newspaper, was twenty-five years old and had been out of college about three years. Our acquaintance had been of a social nature, except that he had interviewed me when I first came to town. One evening at an informal gathering we sipped our highballs a bit off from the other guests and after we had thoroughly discussed Mickey Mouse, Moon Mullins, and the news reporters' guild, he deliberately switched the conversation to things that are military.

In college he had completed two years of Infantry R.O.T.C. and had learned "squads east and squads west," how to aim a rifle (but not how to fire it), some first-aid tricks, and more "squads east." He knew that a squad was eight men, a platoon was two or more squads, and a company was two platoons. He had heard of such terms as division, battalion and regiment, and had recently incurred the wrath of his editor by using them incorrectly in a news article. He wanted me to lend him a book on the subject and he was very pleased when I promised to make him a present of one.

Early the next morning he called at my office for it. The book, *Special Text No. 227* of the Army Extension Courses, had the lesson assignment sheets and questions attached. This prompted an inquiry. The result of my explanation was that he enrolled in the Infantry Ten Series and enlisted in the National Guard.

Next day he was back again. If this sub-course, "Organization of the Army," was the very first one in the very first series he feared the rest of them would be over his head. However, this was just the information he had originally wanted. He had completed the entire sub-course and wanted to wait while I looked over his answers.

Question: In the infantry division, what is the basic arm?

His answer: The rifle.

Correct answer: The infantry.

Discussion: Yes, the rifle and machine gun are "small arms" and the bayonet and pistol are "side arms." No, artillery pieces are not called "big arms." The Infantry, Field Artillery, and Corps of Engineers are called "arms" because they are branches of the service that have combat rôles and the Quartermaster Corps is called a "service." Yes, they call the whole Army "the service." Perhaps they shouldn't but they do. No, the service company that you enlisted in is part of an infantry regiment and is therefore part of an arm, not a service. No, I don't know just *who* started such a mess.

How to tell a Kentucky Colonel from a real one.

Question: What is the meaning of the "corps troops?"

His answer: Troops in the Signal Corps, Quartermaster Corps, Air Corps, Corps of Engineers, etc.

Correct answer: The term "corps troops" is applied to all the troops and trains in the corps except the infantry divisions.

Question: In the organization of the cavalry division what units represent the following arms and services: _____; _____; Signal Corps _____?

His answer: A company.

Correct answer: A troop.

Discussion: You had the right idea but when a company is mounted on horses they call it a "troop." Yes, now that they're motorizing cavalry units they still call them "troops." No, when the infantry has been motorized and is riding in trucks they will still be "companies." Yes, it's O.K. to use the term "infantry troops." Now these outfits we spoke of, since they're mounted they're called signal Corps troops. No, they're *not* corps-troops: that's because they—

At this point he interrupted to ask if I wouldn't join him in a glass of beer down at the corner. He had a queer light in his eye and his parched lips were taut.

Fearing he may have tired of the subject I waited for him to reopen it. He downed two beers in silence, then ventured a thought as he toyed his third glass.

"You referred to Major Snitzbaum as a *staff* officer. He's a dentist and on the staff. On another occasion I heard you call him a *field* officer."

Having choked on my beer I was unable to reply.

In my opinion our Army Extension Courses are the smartest idea that the War Department has yet conceived. They are the best medium we have for training our Reserve officers and for the National Guard officer they supplement his armory and field training so that he will know what to do with a war-strength unit. The Regular Army lieutenant, shifted from post exchanges, to prison offices, to post headquarters, finds in them a means of keeping up with his real job. But something might be done to make them a bit less confusing to those who are not steeped in military terminology.

Since the foregoing remarks are of a critical nature, perhaps the following suggestions will entitle this effusion to the classification of constructive criticism:

1. Start the Ten Series with a sub-course on "organization of the infantry regiment."
2. Teach "Organization of the Army" in any sub-course *after* Inf. 20-2, "Organization of the Infantry Division."
3. Revise some of our more confusing terms and expressions.

TROPHIES

THE perennial flower is again in full bloom. Each time we have announced the result of the competition we have nearly exhausted our supply of descriptive adjectives and dealt heavily in superlatives: therefore, this announcement will, of necessity, be an old story thrice told. For the sake of variety we would like to treat this year's award in a different vein and to pass out some hitherto unused complimentary remarks, but on sober reflection we believe that the record and the bare recital of facts will speak more convincingly than any number of platitudes. We are truly thankful that no more than three trophies are awarded annually. This number overtaxes our ingenuity in thinking up something different to say about each. We are not complaining. The award of the several trophies have more than demonstrated their worth in increasing the work accomplished in the extension school and in building *esprit de corps*. At this time it is our pleasure to announce the winner of the trophy awarded to a reserve regiment; also, the individual trophy awarded to a Coast Artillery Reserve officer in each corps area for outstanding accomplishment in extension school work.

ASSOCIATION TROPHY AWARDED TO THE 519TH C.A. (AA)

To the insatiable devourers of extension school work assembled under the banner of the 519th C.A. (AA), located in the extreme southwestern part of the United States, goes the glory accorded a blue ribbon winner. The headquarters of the regiment is located in Los Angeles, California. The regimental commander is Lieutenant Colonel Frank J. Baum and the unit instructor is Colonel

R. H. Williams. The personnel numbered 65 as of December 31, 1934, while the total number of credit hours earned by the regiment for the fiscal year ending June 30, 1935, was 5,413, an average of 83.27 credit hours per member. This regiment stood third in last year's competition with an average of 60.81 credit hours per member, therefore, it raised the ante by approximately 23 credit hours per officer. This certainly shows consistency and sustained effort. We wonder how busy officers can be induced to give so unstintingly of their leisure time, and we pity the unit instructor.

This record speaks for itself, and nothing that we can say would add one mite to the honor and glory due the personnel of the regiment. They have demonstrated their worth and tested their mettle in many hard-fought battles all over the Leavenworth and Gettysburg maps, not to mention the numerous skirmishes and minor engagements with antiaircraft firing data and the tactics and technique of Coast Artillery.

Not so long ago a certain British service publication favorably commented upon the reserve system as developed in the United States, pointing out that the English might do well to take a page from our note book. The wonderful manner in which Reserve officers have supported the movement and given generously of their time and talents to make it a success is positive proof of the abiding faith which this nation has ever placed in the integrity, patriotism and unselfish devotion to duty of its citizen soldiers.

Each year demonstrates the wisdom and foresight of the framers of the National Defense Act of 1916 as amended by the subsequent act of 1920. We cannot

STANDING OF CORPS AREAS

Corps Area	No. of Units	Average Strength per Unit	Total No. Credit Hours	Average No. of Credit Hours per Unit	Average No. of Credit Hours per Individual
1 IX	14	51.6	31,852	2,275.3	44.09
2 II	13	54.5	22,706	1,746.6	32.05
3 III	9	99.1	23,097	2,566.3	25.89
4 VIII	5	41.8	4,710	942.0	22.54
5 I	13	54.2	14,814	1,139.5	21.02
6 VI	8	59.0	9,027	1,128.4	19.13
7 VII	8	108.0	15,114	1,889.2	17.49
8 V	8	49.6	5,957	744.6	15.01
9 IV	5	154.8	10,036	2,007.2	12.96

STANDING OF THE FIRST TEN REGIMENTS

Regiment	Corps Area	Strength	Total No. Credit Hours	Average No. Credit Hours	Regt. Commander	Instructor
519	IX	65	5,413	83.27	Lt. Col. F. J. Baum	Col. R. H. Williams
507 (RAI)	VII	43	3,568	82.97	Lt. Col. H. E. Pride	Major B. L. Harigen
975	IX	67	4,408	65.79	Lt. Col. F. H. Holden	Lt. Col. George Ruhlen, Jr.
57 (RAI)	IX	42	2,234	53.19	Major W. W. Breite	Lt. Col. A. L. Loustalot
976	IX	36	1,834	50.94	Lt. Col. G. W. Fisher	Lt. Col. George Ruhlen, Jr.
502 (RAI)	II	37	1,862	50.32	Lt. Col. C. H. E. Scheer	Lt. Col. E. H. Thompson
509 (RAI)	IX	53	2,593	48.92	Col. W. S. Polfitt	Capt. D. J. Rutherford
630	IX	63	2,949	46.81	Lt. Col. W. C. Bickford	Capt. D. J. Rutherford
514	II	74	3,458	46.45	Major N. E. Devereux	Major Delbert Ausmus
977	IX	66	2,999	45.44	Lt. Col. E. A. Evans	Lt. Col. A. J. French

(and probably should not) have a large professional army. So long as the members of the Reserve Corps continue assiduously to prepare themselves for the duties and responsibilities which will devolve upon them in the event of mobilization we need have no unfounded fears concerning the future security of the nation. In time of peace they are preparing for war without expectation of material reward. No fan-fare of trumpets or panoply of parade attends their efforts. They are toilers in the seclusion of their private studies. The public is not aware of their untiring efforts and devotion to a cause. Their sole reward comes from the knowledge of a duty well done. All hail to the conscientious reserve officer, and may his number increase.

The second place goes to the 507th C.A. (AA), that redoubtable aggregation of stalwarts that won the trophy in 1934 and lost by a nose in the 1935 race. Only an average of .3 credit hours per individual separates them from the winner. To say that this organization plays in hard luck is putting it mildly. It is recalled that it lost out in the 1933 race only because of a fluke in the assignment of three enlisted reservists unknown to the regimental commander and the unit instructor. It develops that they lost out this year only because the commission of an officer who was transferring from the Engineers to the Coast Artillery did not come through until some time in July. During the year this officer accumulated 146 credit hours, all earned in Coast Artillery subjects. Had his commission in the Coast Artillery anti-dated July 1, 1935, this number of credit hours would have been included in the total and the 507th would have been declared the winner. Life is full of alibis but this one has more than usual merit; it is enough to cause "wailing and gnashing of teeth." Alibis never won a battle, and under a strict application of the rules of the game they cannot be permitted to win a trophy. To lose out in the 1935 race by such a small margin is enough to discourage the most stout-hearted. To be the winner in one year and to stand second in both the preceding and succeeding year is a record in which any organization should take justifiable pride; in this case there is no less glory in defeat than there would have been in victory. All honor to Lieutenant Colonel H. E. Pride, the regimental commander, and the entire personnel of the 507th. Their performance shows a remarkable degree of consistency. We only wish that others would pattern after their fine example.

While it is not within our province to award this organization the trophy we feel that their record is both exceptional and meritorious. The 1934 record of this organization was an average of 135.96 credit hours per member. In commenting on this we hazarded the opinion that this figure would remain unequalled or unsurpassed for a long time. The record stands, and it was not even approached by this year's performance. Whether or not it will ever be exceeded remains to be seen.

It is especially worthy of note that seven out of the first ten places in relative standing goes to units of the IX Corps Area. Of the missing numbers, sixth and ninth

places goes to the 502d C.A. (AA) and the 514th C.A. (AA) of the II Corps Area. The last mentioned organization stood seventh last year with an average of 44.82. This year it stands ninth with an average of 45. The total and average number of credit hours together with the names of the regimental commanders and unit instructors appear in the accompanying tabulation. We congratulate all of these and are only sorry that it is not possible to make a more tangible and fitting reward.

For a long time the Executive Council of the U. S. Coast Artillery Association has struggled with the problem of prescribing a more equitable plan to be used in selecting the winner of the trophy. This question has proved to be difficult (if not impossible) of a perfect solution. Elsewhere in this number of the JOURNAL will be found the plan finally adopted by the Executive Council. It is too early to predict what effect the change will have upon units that for the past several years have been in the forefront, but we believe that those who have consistently shown a high performance will again be found in the vanguard. We wish all of them every possible success. Their momentum is too great to be checked by any slight obstruction. May the best unit win.

The following tabulation shows the standing of the first three regiments in each corps area (except the IX where the list has been increased). It is regretted that space does not permit listing all regiments.

Regt.	Strength	Total Credit Hours	Average Hours per Member
<i>I Corps Area</i>			
615	37	1,593	43.1
606	16	591	37.0
903	67	1,916	28.6
<i>II Corps Area</i>			
502	37	1,862	50.3
514	74	3,458	46.5
530	32	1,440	45.0
<i>III Corps Area</i>			
913	94	3,919	41.9
503	101	4,020	39.8
523	83	2,767	33.3
<i>IV Corps Area</i>			
545	185	3,965	21.4
524	115	2,296	19.9
540	120	1,329	11.1
<i>V Corps Area</i>			
534	50	1,261	25.2
932	33	681	20.6
938	97	1,574	16.2
<i>VI Corps Area</i>			
506	33	992	30.1
951	44	1,145	26.0
950	53	1,209	22.8
<i>VII Corps Area</i>			
507	43	3,568	82.97
960	67	2,951	44.0
537	206	3,842	18.7
<i>VIII Corps Area</i>			
974	42	1,784	42.5
969	30	624	20.8
972	45	853	18.9
<i>IX Corps Area</i>			
519	65	5,413	83.27
975	67	4,408	65.79
57	42	2,234	53.19
976	36	1,834	50.94
509	53	2,593	48.92
630	63	2,949	46.81
977	66	2,999	45.44

In making the announcement of the award the President of the U. S. Coast Artillery Association, Major General Harry L. Steele, addressed the following letter to the regimental commander:

Lieut. Col. Frank J. Baum

519th C.A. (AA)

Los Angeles, Calif.

(Through the Commanding General, IX Corps Area,
Presidio, San Francisco, Calif.)

Dear Sir:

It is a great pleasure to me to be able to inform you that the Executive Council of the U. S. Coast Artillery Association has designated the 519th C.A. (AA) as the winner of the trophy, awarded annually to a regiment of the organized reserve that accumulated the greatest average number of credit hours per member during the training year ending June 30, 1935.

The official report shows that the members of your regiment accumulated 5,413 credit hours and that the strength of the organization as of December 31, 1934, was 65; an average of 83.27 credit hours per member. Also I am informed that your organization stood third in the com-

petition for the year ending June 30, 1934, with a record of 60.81 credit hours per member. This shows plainly that the personnel of your regiment are actuated by a desire to prepare themselves for the responsibilities which they must shoulder in the event of mobilization. Such a record could not be established except at the expense of long hours of study accompanied by a sacrifice of personal pleasure. To render such outstanding and meritorious service in the cause of national preparedness without hope of tangible reward or self-aggrandizement speaks in a most convincing manner for the patriotism, interest and industry of the entire personnel of the 519th C.A. (AA). For this I desire to extend to you, and through you to the members of the regiment, my personal congratulations and the felicitations of all members of the Coast Artillery Association.

The Secretary of the Association has been instructed to place an order for the fabrication of the trophy. At a later date plans will be formulated for suitable presentation ceremonies.

Sincerely yours,

(Signed) H. L. STEELE,
Major General,
President.

The Individual Trophy

FOLLOWING the procedure of the past two years, the Coast Artillery Association has again awarded a saber with the winner's name etched on the blade to the Coast Artillery Reserve officer in each corps area who accumulated the greatest number of credit hours by means of completed extension school courses during the training year ending June 30, 1935. This award has had a most salutary effect by increasing individual output and stimulating interest. For example the highest score last year was 858 credit hours. This year the ante has been raised to 1069.

Again the premier position goes to an officer residing in California. Why this state should have all the honors is beyond our comprehension. Perhaps it is due to the invigorating climate, but we strongly suspect that the impetus supplied by the regimental commanders aided and abetted by the unit instructors has more to do with it than the amount of ozone. Whatever it is we would like

to inoculate others with this particular kind of virus.

It is interesting to note that the winner of this year's trophy, First Lieutenant Harold I. Strahn of the 975th C.A. (AA), the winner of the trophy in the IX Corps Area, also won the trophy in 1933. We strongly suspect that he is making a collection of sabers. Just what he can do with more than one we do not know, and we are wondering if he intends to corner the market in the Corps Area. He must have exhausted the available supply of extension school courses. This circumstance alone may make it possible for someone else to collect a saber from the Coast Artillery Association.

The following tabulation tells all of the story. Nothing that we can say will add to or detract therefrom. To each of the winners go the congratulations of the Executive Council and the entire membership of the Coast Artillery Association. They are all deserving of unstinted praise for their energy and perseverance.

Corps Area	Name	Organization	Address	No. Subcourses	No. Lessons	No. Hours
First	Captain Karl M. Pearson	615th	86 Montclair Road Haverhill, Massachusetts	6	45	275
Second	1st Lt. Charles H. E. Scheer	502d	60 Wall Street New York, New York	4	28	330
Third	2d Lt. Hugh S. Wertz	913th	427 Buchanan Street, N.W. Washington, D. C.	25	190	507
Fourth	Major Charles M. Boyer	524th	541 Marshall Street Decatur, Georgia	3	23	240
Fifth	1st Lt. John B. McClure	511th	2927 Hampshire Road Cleveland Heights, Ohio	8	62	189
Sixth	Major Russell B. Horner	506th	1118 Gillette Street LaCrosse, Wisconsin	3	27	204
Seventh	1st Lt. Melford M. Lothrop	507th	3636 Pierce Street Sioux City, Iowa	9	74	487
Eighth	Major J. T. Jonsdale	974th	College Station, Texas	3	26	250
Ninth	1st Lt. Harold I. Strahn	975th	3049½ Edgehill Drive Los Angeles, California	58	384	1,069

In submitting the report from the 3d C. A. District the Commanding General stated as follows:

I take great pleasure also in furnishing the following list of Reserve officers who stand in the lead of extension school courses in each regiment. All of these I consider deserving of honorable mention for their work:

Name	Organization	No. of SC Completed	Credit Hours
2d Lt. Michael Zochak	503d C.A.	17	309
1st Lt. Harry A. Edwards	508th C.A.	13	222
1st Lt. Matthew A. Hutmaker	510th C.A.	10	210
1st Lt. H. C. Scheidenmantel	523d C.A.	14	285
Major George H. Collins	603d C.A.	2	170
Captain Russell M. King	622d C.A.	6	172
Major Milo H. Brinkley	913th C.A.	4	330
1st Lt. Hyman B. Wax	916th C.A.	10	151
2d Lt. P. D. Hollyfield	917th C.A.	16	279

The President of the Association, Major General Harry L. Steele, has addressed the following letter to each of the winners:

My dear . . . :

It gives me great pleasure to inform you that you have been designated by the Executive Council of the U. S. Coast Artillery Association as the winner of the saber awarded to a Reserve officer in each Corps Area who accumulated the greatest number of credit hours during the past fiscal year, by means of extension school work. I cannot too highly commend you for this manifestation of interest and professional zeal in preparing yourself to more efficiently and effectively perform the duties which will devolve upon you in the event of mobilization. It is my hope that your worthy example will be followed by others.

I am conscious of the fact that the winning of a signal honor of this nature entails a great amount of work, effort and energy above and beyond the demands of official duty. To give so unstintingly of your leisure time marks you as an outstanding Reserve officer imbued with the highest motives of patriotism and a belief in the cause of preparedness.

For your devotion to duty and fine record of accomplishment I desire to extend my personal congratulations and the good wishes of the entire Coast Artillery Association.

The saber with your name etched on the blade will be forwarded to you in the near future.

Sincerely yours,

(Signed) H. L. STEELE,
Major General,
President.

The All Time High Scorer

THIS young officer began his career by winning the individual trophy in 1933. The advantages of experience gained, when it came to trying to repeat the feat, were more than outweighed by the necessity of going farther afield to find more subcourses to conquer. At the beginning of the school year he found himself in the position of one who has covered the whole gamut from the 10—series to the 40, both inclusive, with a few Signal Corps subcourses on such matters as cryptography and the care and feeding of homing pigeons thrown in. Not counting the work before he received his commission, he had run up a total of 879 hours.

He rapidly ran through every Coast Artillery subcourse that was revised in 1934-35 and then applied for



First Lieutenant Harold I. Strahn,
975th CA (AA).

Born Wellington, Kan., Jan. 9, 1906. Appointed
2d Lt., CA-Res., Apr. 78, 1932. Promoted 1st
Lt., Apr. 20, 1935.

enrollment in the Command and General Staff course. Higher authority stymied him here, on the ground that he was too young and too newly commissioned to pursue such rarified and advanced work to any profit either to himself or to the Government. As a suitable alternative it was suggested that he broaden his basic education by enrolling in the more elementary courses of other arms, but he was cautioned to take the work more thoughtfully and deliberately. And in order to insure that the work be done in this manner, it was directed (by the same authority) that the regulations prescribing the issue of one lesson at a time should be strictly followed.

Thus it came about that Lieutenant Strahn was a regular noon-day visitor at the office of his unit instructor. Through many and various instructive subcourses of the Air Corps and the Infantry, he daily brought in one solution and took out the succeeding lesson. Sometimes when he could prolong the noon hour, he would work a lesson in the office, and thus gain a lap. But he never could devise a means for getting enough to do over a Sunday or a holiday. Lunches were not on his schedule.

Lieutenant Strahn, contrary to the natural assumption, is gainfully employed, and spends long hours earning his daily bread. In spite of this, he has been able to help out quite frequently with the clerical work of the reserve office, besides piling up the winning total of 1069 hours of extension course work. When asked for the secret of his success, he modestly ascribed it to the fortuitous circumstances of being placed in a family milieu of bridge players, while he prefers Army Extension course work.

The Battle of Adowa

By MAJOR BERNARD SMITH
Corps of Engineers

ETHIOPIA has been appropriately called the African Switzerland, although its mountain masses and deep cleft chasms have been shaped with a cruder touch. A fortress-empire, surrounded by 7,000-foot ramparts, it stands between the southwest shores of the Red Sea and the sandy wastes of the Soudan. It consists of a series of table lands of varying elevations, surrounded by lofty ranges through which rivers have cut deep gorges on their way to the lowlands. In area it is about equal to Texas and Oklahoma combined.

This natural fortress, with its margin of tributary lowlands, has a vegetation varying from tropical luxuriance below 5,000 feet, to the scanty growth of the highlands 10,000 to 15,000 feet above sea level. Between 5,000 and 10,000 feet are found the equivalent of the forests, grains and fruits of southern Europe. On the whole the climate is temperate, although it is oppressively hot in the valleys and lowlands and cold in the high ranges. During the rainy season, which begins in March and continues into September, military operations are difficult if not impossible.

Ethiopia is inhabited by some 5,000,000 to 10,000,000 people, so heterogeneous that the Arabs called them "Abyssinians," a name derived from a word meaning "mixed race." Of their quality as warriors, a 2,400-year record of repulsed invasions bears eloquent proof. The single successful invasion was by a British expedition under Lord Napier in 1868.

Of the apple that was Africa only the core has been left to Italy, and a most refractory and unnutritious core it will prove to be. For Italy, in seeking to acquire some 400,000 of Africa's 11,500,000 square miles, takes on the most difficult problem, both topographically and ethnologically, that the continent presents.

In 1870, as the first step toward the solution of this difficult problem, Italy bought the Red Sea port of Assab from the local Sultan, and in 1885 (with British approval) took the port of Massowah from Egypt. This foothold was expanded into the colony of Eritrea.

Ethiopia is divided into provinces or kingdoms, each the hereditary domain of a Ras, or King, and it is from this circumstance that the ruler of all Ethiopia derives his title of King of Kings. It was this circumstance also that made Italian penetration of the country possible.

In March, 1889, Menelik, King of Shoa, proclaimed himself Emperor. A rebellion by Ras Mangasha of Tigre was put down by the Italians who compensated themselves for this aid to Menelik by incorporating the northern part of the province of Tigre in their colony of Eritrea.

During the next five years the Italians attempted, first, to gain Menelik's assent to a protectorate, and failing in that, to win the semi-independent chieftains from their

"We are ready for any sacrifice in order to save the honor of the army and the prestige of the monarchy."

allegiance to him. The problem was complicated by the diplomatic maneuverings of France and Russia against Italy and Great Britain. The latter and Germany had forbidden the export of arms to Ethiopia, while the French and Russians, in retaliation for Italian aid to Britain in the Armenian dispute, were supplying Menelik with arms and urging him to make war.

The raising of an Abyssinian Army is a *levee en masse*. The tribes are assembled by the local chiefs, and rifles are served out, as far as they will go, to those best able to use them. Others are armed with spears and curved swords. The cavalry differs from the infantry only in that it is mounted.

An Ethiopian army is usually accompanied by women, slaves and camp followers to a third of its number. As there is no commissariat, the country through which the army passes is depleted of supplies; even in fertile territory it cannot remain halted for more than a week or so without sending out marauding parties to collect food. Each man fights, not fanatically as the Dervishes do, but as a skillful individual skirmisher.

Italy's African force in 1896 included both Christian and Mohammedan native troops from the colony of Eritrea. Native battalions consisted of four companies of 300 men each. The companies were divided into three *centurias* of 100 men, each *centuria* being commanded by an officer. In each company there were three Italian lieutenants and two native subalterns. Batteries were pack transported and consisted of four officers, eleven noncommissioned officers (Italian) and 163 natives. The artillerymen were usually Soudanese Mohammedans. The Askari or native soldier was, and is, an excellent fighting man. He requires only a ration of flour, and is capable of enduring long marches with little rest.

An idea of Italian tactics may be gained from these rules for the guidance of officers:

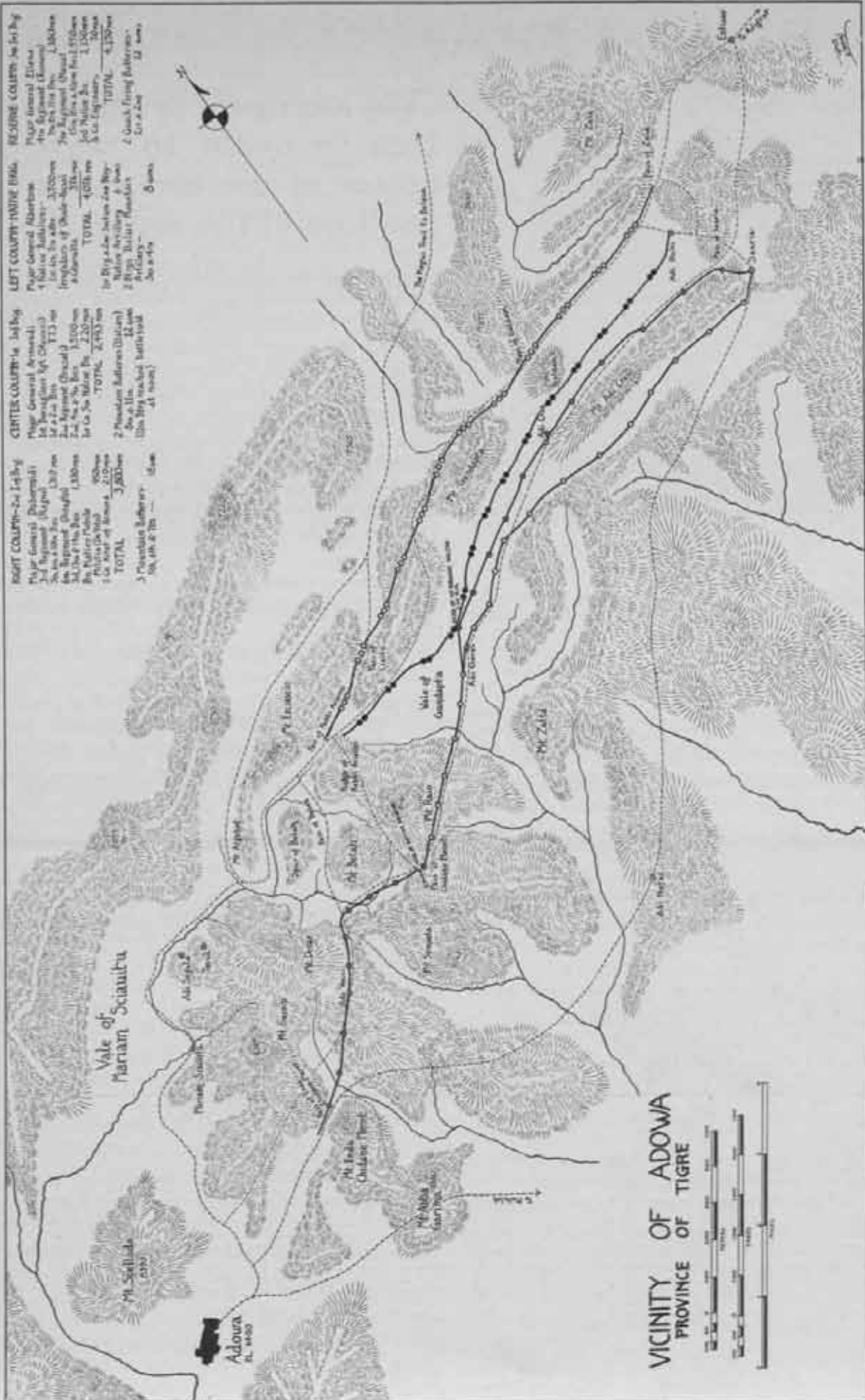
"The bayonet is to be used on every possible occasion.

"The officers (all of whom were mounted on mules) are to dismount when in the fire zone.

"In the firing line, a close formation, that is, a thin line, shoulder to shoulder, is to be employed.

"No firing is to be ordered at a greater distance than 500 meters, and, except in unusual cases, volleys are to be employed.

"The men with the commissariat column are to take part in the action, as many of them as possible advancing into the lines.



"As soon as the fighting begins the reserve cartridges are to be distributed from the commissariat.

"Notes are frequently to be sent off, giving information of the hour, place, and situation of affairs at the moment."

In preparation for the campaign, Baratieri, Governor of the Colony of Eritrea, who was also commander-in-chief of the military forces, prepared for a defense within the triangle Adowa-Makaleh-Adigrat, but the destruction by the Ethiopians of an advanced force of 2,000 men at Amba Alagi forced a retirement to Adagamus. This practically impregnable position covered the approaches to Eritrea from the south. A battalion left behind at Fort Makaleh to guard stores the Governor was loath to destroy was forced to surrender after a siege of 45 days.

The terms of the capitulation required the return of the garrison of Fort Makaleh to the Italian lines. A large Ethiopian escort was necessary for its protection, and Menelik directed the march via Dongolo and Hausien in such a manner as to protect his flank as he moved his army westward across the Italian front to the fertile Vale of Gundapta. Baratieri immediately moved to the heights of Sauria to cover Adigrat and his communications to the north.

On February 12th, Baratieri had 21,000 men and 50 guns at Sauria, and about 10,000 throughout the colony, of whom 4,000 were on the line of communications. During a comparatively short period the Italian forces had been increased four-fold; their rapid expansion, necessary though it was, brought many difficulties in its train. The equipment of the troops so hurriedly mobilized was badly adapted to the kind of service required of them. The rocky trails over which long hard marches were made demanded steel shod Alpine boots. Those supplied were in shreds in less than three months. Most of the difficulties could be traced to the failure of the supply columns, operating over 150 miles of mountain trails. There was a lamentable shortage of transport animals which compelled the use, to the point of exhaustion, of those available.

On February 22 it was estimated that provisions for more than ten days could not be assured, and on the 23d a retirement to Addicaie was ordered. On the 24th the order was countermanded; to still the clamor that was raised and to bolster morale a "reconnaissance in force" with 14 battalions and 6 batteries under General Daborinda was made. The troops took up a position to the west of Adi Cheras but returned to camp at night. On the 25th the retirement was again considered, but again abandoned.

Menelik had retired to Adowa on February 14th. Although he now had over 100,000 men his case was not much better than that of the Italians. His force could remain massed only as long as food lasted, and the period had already exceeded all previous records. An attempt to send a force of about 12,000 men around the Italian right flank to collect food and devastate the country was promptly frustrated. With provisions for only three or



Map II — The Theater

four days, Menelik bided his time hoping that the Italians would attack; he even resorted to the stratagem of spreading rumors of rebellion in his ranks to encourage them to do so.

The colonial adventure, which had caused a severe strain on Italian finances, was vigorously opposed by a large portion of the Italian people. It was only a desire for the restoration of the prestige of Italian arms, after the defeat of Amba Alagi, that enabled Prime Minister Crispi to get an appropriation through the Chamber of Deputies. The Prime Minister, however, was not satisfied with the progress of events in Africa and his dissatisfaction was very bluntly expressed in a telegram to Baratieri, dated February 25th, quoted in part as follows:

This is a military phthisis and not a war. . . . Small skirmishes in which we are always facing the enemy with inferior numbers—a waste of heroism without any corresponding success. I have no advice to give you because I am not on the spot (in the venacular of the present General Baratieri was) but it is clear to me that there is no fundamental plan in this campaign and I should like to see one formulated. We are ready for any sacrifice in order to save the honor of the army and the prestige of the monarchy.

The 20,000 men that Baratieri had at Sauria were all that his difficult line of communications could sustain. The apparent vacillation of his course of action arose from the necessary dependence on native spies for information of the enemy. Orders based on the reports of one group later had to be recalled on the basis of information furnished by another. On the 26th the garrison was prepared, on the reports of spies, for an attack in force, but it was never delivered and the troops were inclined to ridicule the fears of their leader. On the 28th a retirement toward Addicaie was ordered and the baggage actually started.

On the night of the 28th the Generals were assembled—informally—and Baratieri explained that provisions

would not last beyond the 2d, or at the latest the 3d of March, and that some action must be taken. Retirement to Senafeh, Addicaie, or even to Asmara, was mentioned. But the Generals were against retirement—the loss of three or four thousand men was to be preferred to retreat, and retreat in any event would be futile, since the enemy could out-march and overtake the column. All were in favor of attack. Baratieri closed the conference with the statement that further information of the enemy was expected and that on receipt of it a decision would be made.

To Governor Baratieri, faced with the necessity of doing something, and, with time relentlessly pressing him, the only practical plan seemed to be a rapid advance to a new position, naturally strong, wherein to provoke the enemy to attack. A forward movement would force Menelik to a counter-stroke, for his men were hard to hold. A strong defensive position, discipline and artillery would go far to compensate for inferiority of numbers.

Between the height of Sauria and the amphitheatre of Adowa there are two strong positions; the first lies between Mount Esciascio and Mount Semiata at a distance of about ten miles from Sauria, and the second extends from Mount Abba Garima along the heights to the east of Adowa. General Baratieri's plan was to occupy the former position by a night march—not to advance beyond it, and not to fight unless attacked.

In every lost battle there is always one event which is singled out from among the many contributing factors as the direct cause of failure. In the case of Adowa it was a confusion of names. On the Semiata-Esciascio line there was a pass of Chidane Meret and on Abba Garima line there was a pass of Enda Chidane Meret, the word "Enda" meaning church.

In his account of the campaign, Berekeley (The Campaign of Adowa) says that the pass—he calls it the hill—of Chidane Meret was named by Baratieri on a rough map he had prepared as up to that time it had no designation. It is the Ethiopian custom to attach names to areas rather than to exact locations, since their type of architecture is so casual that even villages do not constitute fixed points. It seems not unlikely that the pass near Mount Semiata should have been named "Pass of Chidane Meret" and the one some five miles further on should have been named "Pass of the Church of Chidane Meret."

Baratieri's orders issued on February 29th directed an advance to the Semiata-Esciascio position in three columns with a reserve following the center column. The leading elements were to leave their respective camps at 9:00 P.M. and the reserve to follow the center column at an interval of an hour.

The right column was to march via Zala Pass—Guldam Pass to the Pass of Rebbi Arienni; the center column and reserves were to follow the route from Adi Dichi through Gundapta to the Pass of Rebbi Arienni; and the left column was ordered to move to Chidane Meret by the Sauria-Adi Cheras Road.

The force was to occupy the Semiata-Esciascio line, with Albertone's column on the left and Dabormida's column on the right. General Arimondi's center column, if it found the ground held in sufficient force by the other two, was to take up a position in readiness in rear of the other columns. Generals were directed to send frequent advices to headquarters and to the Commander of the neighboring column.

The constitution of the several columns appears on Map I.

The Italian troops actually participating in the battle numbered 17,700 (14,519 infantrymen and 3,181 artillerymen) accompanied by 56 guns. Of the total force, 10,596 were Italian, the remainder native.

To oppose this force King Menelik had assembled 100,000 warriors and 42 guns. It is estimated that 80,000 were equipped with rifles and 20,000 with spears. Included in the force were 8,600 mounted riflemen.

At the appointed time the columns moved off by the light of a brilliant African moon. At the head of each column marched a small group of friendly native guides followed at a short distance by the conventional advance guard.

At an early hour Baratieri had a foretaste of the difficulties inherent in his ambitious night maneuver. Shortly after the march had gotten under way he was astounded to discover, that despite his careful orders, one battalion of the right column had become so confused in the darkness that it was marching in rear of the left column. He promptly reoriented this battalion and proceeded to Adi Cheras; there (at 3:30 A.M.) he found the Bersaglieri Regiment (center column) waiting for Albertone's column to clear a defile ahead of them.

On Italian maps the route of the Native Brigade is shown running west from Sauria along the south of Mount Adi Cras. The orders that were issued, however, do not definitely fix it along that line. Actually the brigade marched north of the ridge and finally blocked the movement of Arimondi's (center) column in a narrow pass near Adi Cheras. Due to their rapid marching, or possibly because they accelerated to clear the defile for Arimondi, the Native Brigade (left column, General Albertone) reached the Pass of Chidane Meret at 3:00 A.M. where, according to the plan of the Commanding General they were to halt and go into position.

Having arrived at his position two hours earlier than the Governor had assumed, Albertone (left column) found no evidence of the arrival of the other columns. He began to have misgivings as to his location. On the sketch that Baratieri issued to his officers the Pass of Chidane Meret is clearly marked and its position with reference to the line to be occupied is unmistakable. Furthermore Albertone had special orders to maintain contact with the column on his right which he failed to do.

Either through misinterpretation of his orders, inexactness of the sketch, or inopportune initiative, Albertone resumed the march after less than an hour's halt, on the statement of a guide that the pass of Chidane Meret was

some four and a half miles further in advance. At about 5:30, Albertone halted his main body near Adi Vecchi in a belated attempt to gain contact with the center column, but his impetuous advance guard continued on through the pass of Enda Chidane Meret and in flagrant disobedience of orders attacked the Ethiopian outpost.

While Albertone's column was floundering about in the darkness Baratieri, who believed his right flank to be the danger point, had moved to the vicinity of the pass of Rebbi Arienni to supervise the movement of his right column into position. At 5:15 the right column reached Rebbi Arienni and 30 minutes later had occupied the pass and the adjacent slopes with three battalions—the Militia Battalion and the Company of the Kitet of Asmara on the right, the 6th Battalion in the center and the 10th Battalion on the left, with the guns on the ridge just south of the pass. The rear echelon of the Brigade—the 6th Regiment and one Battalion of the 3d regiment—were being massed to the east of the pass.

At 5:30 the center column put in its appearance. Baratieri at once ordered this column to close up and to replace Dabormida (right column) in the occupation of the ridge and pass of Rebbi Arienni, also to send troops to hold Mt. Atgebat as a covering force for the right flank. The 4th Battalion (De Amici) and the 1st Company (Pavesi), of the 5th Native Battalion, were designated for this latter duty. This force reached its position about 8:30.

By 6:00 A.M. the Governor's C.P. had been established on the slope of Mount Esciascio. From this locality he heard firing to the left front but ascribed it to the activity of the scouts of the Native Brigade. At 6:30 Arimondi was ordered to move into the positions just vacated by Dabormida's brigade. Fifteen minutes later he was ordered to move to the support of the Native Brigade (left column). On executing this second order the Battalion of Mobile Militia, as an advance guard, moved directly across the valley, through the Pass and around the Spur of Belah, in a bee line for Mount Derar and the sound of the firing. However, the going was so rough that even these native troops required more than an hour to cover less than two miles.

Possibly it seemed that the location of the firing toward which they were marching could be reached as easily around one side of Mount Derar as around the other. In any event when they descended into the valley from the Spur of Belah at 7:45, the advance guard turned right instead of left and continued on into the valley of Mariam Sciauitu.

Although General Dabormida had been instructed where to place his artillery he took matters in his own hands when he found no sign of Albertone's column at Belah. He continued to advance and turned right into the valley that leads into the Vale of Mariam Sciauitu; this notwithstanding that he had been ordered to post his artillery on the Spur of Belah and to gain and maintain contact with Albertone as soon as possible. The Governor expected him to advance no more than 800 meters. Apparently Dabormida believed that his orders required him

to advance to Albertone's assistance without delay.

At 5:45 Ellena's column was in sight at Adi Cheras, and was ordered to close up at that place. At 6:30 these orders were amended to direct him to move up to the ridge of Rebbi Arienni. At 7:45 the rear echelon of Dabormida's Brigade was ordered to accelerate its movement, but it did not finally clear Rebbi Arienni until 8:45. At 8:15 visibility improved, and from his observation post on Mount Esciascio the Governor could see signs of activity on the right, among the Shoan encampment (10,000 to 15,000) at Mariam Sciauitu. On the left he saw that Albertone was seriously engaged. The danger of a general attack seemed imminent and his troops were not yet in position.

At about 9:00 wounded and fugitives from Albertone's brigade were streaming along the trails to Sauria. Staff officers sent to halt and rally the fugitives achieved nothing. The Governor considered recalling the Native Brigade, but with none of the other brigades in supporting position it seemed impracticable.

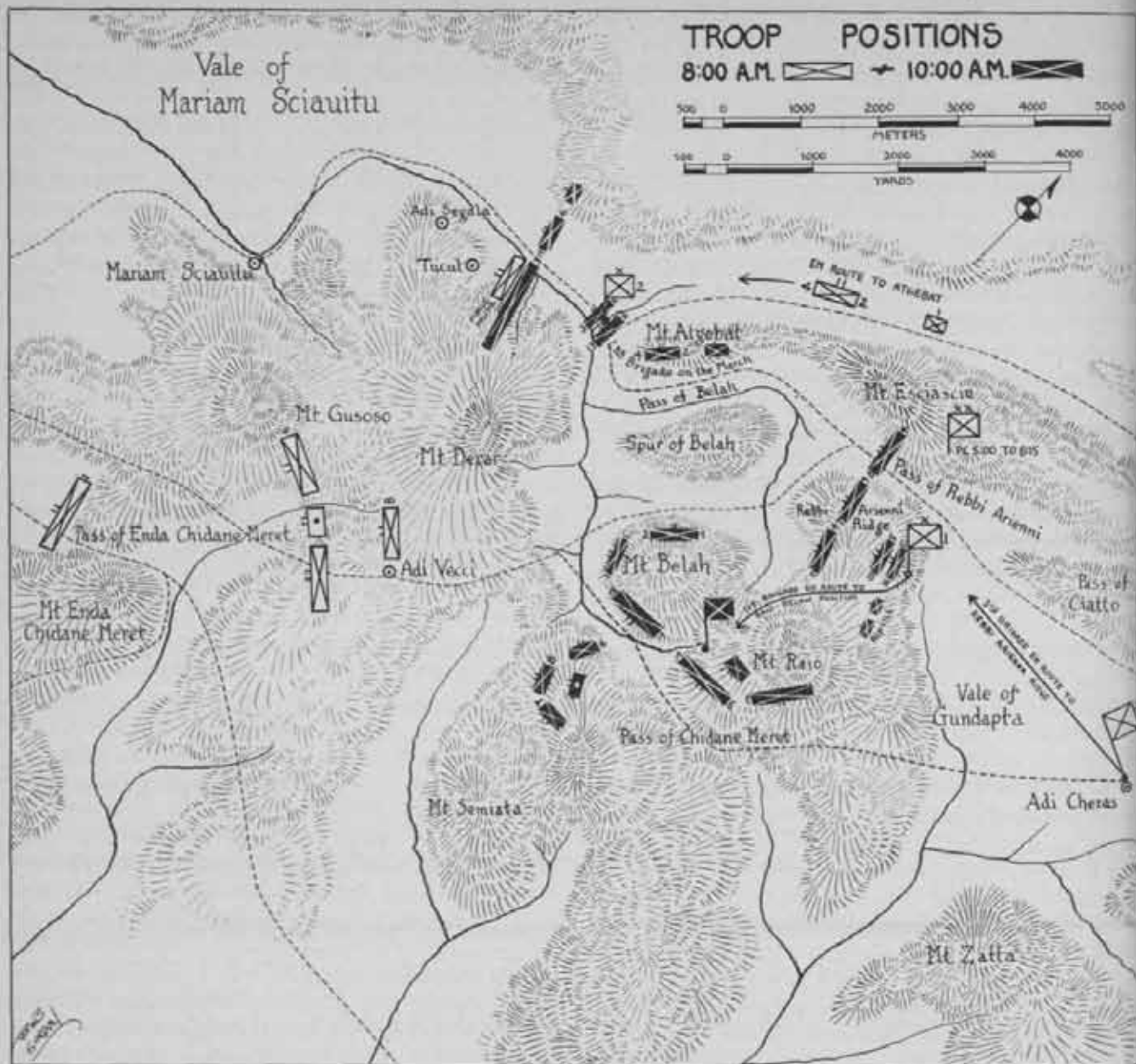
THE FIGHT ON THE LEFT

By 7:30 Albertone's two-hour long column had closed up and he made his disposition with the idea of holding the ground he believed his orders required him to defend, and to extricate his advance guard. He placed his 6th Battalion on the right with its flank on Mt. Gusoso and the 7th Battalion and the Irregulars on the left with their flank "in the air." His artillery went into position in the center of his line. The 8th Battalion was held some distance in rear as reserve. The center of Albertone's position was about a mile from the pass of Enda Chidane Meret, and his line approximately three miles in advance of the position the Governor had intended him to occupy.

At 7:30 Albertone sent a message to the Commanding General describing conditions. At 8:15 he dispatched a second message stating that the 1st Battalion (advance guard) was still seriously engaged; that he was trying to extricate it and that reinforcements would be well received. These messages were not delivered until 9:00 A.M.

After more than an hour's battle against constantly increasing numbers, the 1st Battalion posted one company as rear guard and withdrew. Irregulars in position near the east end of the pass assisted the movement. The rear guard was promptly overwhelmed and the Shoans poured through the pass and over the ridge, literally on the heels of the retreating Askaris.

Dense masses of the enemy now charged from the ridge, but all fourteen guns of Albertone's artillery opened with splendid effect and the impetuous rush was checked. Despite the artillery and the 2,000 rifles in line, the Shoans immediately renewed the frontal assault and weight of numbers drove the attack right up to the muzzles of the guns. The 8th Battalion now launched a counter-attack with the bayonet to relieve the pressure and free the guns. The enemy countered by opening with a quick-firing battery that had come into position on the



Map III—The Fight

ridge. At the same time a dense column poured down the southern slopes of Abba Garima and wound itself around Mount Semiata, turning the left flank. Menelik, sensing the critical moment, now sent in 25,000 of his "Royal Guard"; 15,000 of this elite force engulfed the 7th Battalion while the remainder swarmed over the rocky slopes of Mt. Gusoso and drove in the 6th Battalion.

At 10:30 Albertone finally ordered a general retirement. The 3d and 4th Batteries (Sicilians) were directed to continue firing to cover the retreat. A bayonet charge by what was left of the 7th and 8th Battalions extricated the Native batteries. For a time it seemed that the retirement would be successful. But Menelik's troops were not to be denied. The Italian line broke. The guns were captured, recaptured and finally lost some half mile back of their original positions, after the last rounds had been fired.

By this time the Governor realized that matters had

become serious. Thereupon he decided that his troops must be assembled on the position originally selected. Pursuant to this decision he dispatched an order to Dabormida at 9:15 which directed him to support Albertone's retirement. Unfortunately this messenger met one from Dabormida who carried a note stating that he (Dabormida) "was holding out his hand to Albertone." Once more the unjustified action of an individual hurried the drama of Adowa on to its tragic denouement. The Governor's messenger decided that Dabormida's note to Albertone concurred with the Governor's order and that it was unnecessary to proceed. Similarly an order sent to Albertone at 9:30 directing him to retire was undelivered because the officer carrying it was informed that Albertone had been killed. As a matter of fact Albertone was alive at this time and directing the fight.

At 9:30 Arimondi was ordered to occupy the western

slopes of Mt. Belah and to support Albertone with his quick firing batteries (attached from the reserve). The 2d Regiment deployed on the steep slopes of Mt. Raio and with the 2d Battalion extended the line along the westerly slopes of Mt. Belah. The 8th Battery—the 11th had not arrived from Sauria—and the quick firing guns were placed on the slope in rear of the 9th Battalion, about 6,000 yards in rear of Albertone's front line. At the same time the 1st Regiment moved around Mount Belah and deployed on the westerly slope extending the line northward. The 2d Bersaglieri Battalion, on the right flank, faced the Spur of Belah across the pass of that name. All these movements had to be made in single file over precipitous hillsides that bristled with thorn bushes.

At 9:45 a staff officer who had been sent to find Dabormida's brigade reported that he "saw them advancing just in front of the position," this made confusion worse confounded. Actually he had seen the 4th Battalion (De Amici) which was occupying Mt. Atgebat. The Governor now assumed that the Spur of Belah, which was not visible from his command post, was occupied by Dabormida. At 10:00 and again at 10:15 he sent urgent messages to Dabormida ordering him to advance to the support of Albertone. Neither message ever reached its destination.

Meanwhile the enemy continued to advance and despite the fire of the guns on Mt. Raio the envelopment of the Native Brigade was complete by 11:00 A.M. Most of the officers were killed. General Albertone was wounded and taken prisoner. The survivors of his column retreated toward Sauria, moving overland in small groups. The Artillerymen manning the Silician batteries served their pieces until almost noon, when, with all ammunition expended, they perished to a man in hand-to-hand combat.

THE FIGHT IN THE CENTER

With the left column shattered and its few survivors in wild flight, the savage horde now swung toward the Italian center. Baratieri was in a bad way. The Spur of Belah being unoccupied left his right flank in the air, while the dead space resulting from the steep slopes of Mt. Raio rendered his crumpled left equally defenseless. To form a front against the enemy who were encircling Mt. Semiata, and to provide a rallying point for the remnants of Albertone's Brigade, Gallian's Native Battalion and two companies of the Alpine Battalion were brought up from the reserve. This force extended the line around Mt. Raio to the left. At the same time the 8th Battery opened on the enemy groups who were cutting across the line of retreat of Albertone's stricken command.

When the destruction of the Native Brigade (left column) was complete, the victorious tribesmen raced on to new objectives. With their ranks filled from the seemingly inexhaustible reservoir in the Vale of Adowa the mass that had crushed the right of Albertone's line surged on toward Mt. Belah, while the column that rolled

back the left flank dashed against Mt. Raio and flowed around it into the Vale of Gundapta and the rear of the position.

At 10:30 a third column burst from behind the flank of Mt. Derar and crossed the deep valley in front of Mt. Belah. Taking full advantage of the rough ground, this fresh force swarmed up the steep slopes and, unchecked by the volleys of the defenders, plunged into the ranks of the 2d Regiment, thus putting an end to the normal fire by volley. With the combat reduced to bayonet against sword and spear, the preponderance of numbers soon began to tell.

Part of this same force climbed the unoccupied Spur of Belah and pressed on so rapidly that even the reserve under Ellena, which had fortified itself on the ridge of Rebbi Arienni, could not act in time to oppose the attack effectively. Two companies of the 1st Bersaglieri Regiment advanced to retake the Spur but the attack was repulsed. A second attack also failed, and the troops on Mt. Belah, taken under enfilade fire from the Spur and heavily pressed from the front, began to give ground.

While the right of Arimondi's brigade found itself in this desperate situation, matters on the left were even worse. Galliano's battalion—heroes of the siege of Makeleh—had been posted on this flank. They saw the remnants of the routed Native Brigade stream by with the bloodthirsty Amharas at work among them, and Galla horsemen moving into the Vale of Gundapta in their rear. Perhaps, too, they had been regaled by their escort on the march from Fort Makeleh, with stories of what would happen the next time they fell into Ethiopian hands. In any event they had been under fire only 20 minutes when their nerve failed. They broke and fled.

This defection sent rumors of treachery through the Italian ranks and shook still further a morale that had already been seriously weakened by almost four hours of vicious fighting that had climaxed an exhausting all-night march. The 1st Regiment now broke under the fire from the spur of Belah, and the 2d Regiment, the Alpine companies, and a handful of Askaris, who had been held by their officers when the 3d Battalion fled, were all that remained in line. Baratieri ordered up the 15th Battalion from the reserve to the right flank but they arrived too late and were broken before they could deploy.

By noon the Governor had decided on a general retirement, which he supposed could be safely conducted under cover of Dabormida's Brigade. Having issued this order to the units on the left, he started to ride over to Rebbi Arienni on the right. As he passed Mt. Belah the enemy gained the summit from the west and opened fire on the confused mass of Bersaglieri crowded into the valley.

Meanwhile, the 4th Regiment of Ellena's Brigade defended the pass and ridge of Rebbi Arienni against the column from Mt. Rerar. Baratieri now ordered the 16th Battalion and two Alpine companies—all that remained of the 5th Regiment—to close the gap between Mt. Raio and Mt. Belah. But before this force could deploy, the terror-stricken fugitives streamed through their lines. At

12:30 the 11th (Franzini) battery arrived after a march of 30 miles and attempted to go into position. It succeeded in firing only one round before the retreating troops swept through the position with the pursuers hot on their heels.

Baratieri's despatch to Rome, filed shortly after the battle, presents a vivid picture of this fight in the center. In it he says:

The enemy meanwhile, with great boldness, were mounting upward to our position and were penetrating our files, firing almost point blank at our officers.

Then all contact was at an end and no orderly retirement could be organized. It was in vain that the officers tried to halt the soldiers on any of the successive positions, because the enemy, bursting in on them, and the Galla cavalry dashing about below, were sufficient to throw them into disorder. It was then that the real losses began; the soldiers, as if mad, threw away their rifles and ammunition with the idea that if they were taken without arms they would not be emasculated, and almost all threw away their rations and capes.

As previously noted, the advance guard of Dabormida's Brigade, after starting directly for Albertone's position, had turned to the right into the valley of Mariam Sciauitu. For over an hour the main body of the brigade moved down the valley following a path that ran beside a small and filthy water course. Finally it reached a point where the path divided, the column elected to follow the right branch since this seemed a little less broken. A little less broken it may have been but the advantage was deceptive—the brigade was moving in a faulty direction.

As the advance guard entered the Valley of Mariam Sciauitu, De Vito saw to his left the column that was turning Mt. Gusoso advance on Mt. Derar. He promptly reported a strong body of the enemy advancing toward the ground where he thought the flank of the Native Brigade to be. Dabormida ordered him (De Vito) to attack and establish contact with Albertone. At the same time he sent off his note of 9:15: "Extensive encampments of Shoans are to be seen north of Adowa; a strong column is advancing from them toward the Native Brigade. I am holding out my hand to it (the Native Brigade) while keeping a strong body of troops massed near the road that leads from Rebbi Arienni to Adowa and watching the heights on the right."

The point from which Dabormida "held out his hand" to Albertone pre-supposed a long arm, as the latter's flank on Mt. Gusoso was more than two miles away. However this message confirmed Baratieri in his mistaken idea of the location of his 2d Brigade.

The company of Asmara (210 men) deployed across the valley. The Militia Battalion, with three companies in the front line and one in support, moved rapidly up the spurs toward Adi Segala in an effort to reach the crest ahead of the Shoans. The Italians won the race, but were immediately attacked in overwhelming force. After 40 minutes of desperate fighting they were forced down the hill, with the Shoans in close pursuit. At the same time the enemy moved up the valley driving the Asmata com-

pany toward the hills to the north and exposing the right of the Militia battalion. A centuria (100 men) from the support company attempted to close the gap. This effort failed and the battalion fell back in disorder.

The 3d Regiment, advancing to the aid of the isolated advance guard, fell into momentary confusion when it was struck by the remnants of the Mobile Battalion and the pursuing enemy. However, the troops quickly rallied, charged and drove back the victorious tribesmen.

Meanwhile, following their usual tactics, a Shoan column moved around the right (north) of the 2d Brigade and at 10:00 o'clock struck De Amici's force on Mt. Atgebat. They broke in among the medical section, killing doctors, attendants and wounded. De Amici asked Dabormida for help and at about 11:00 the 13th Battalion was sent from the reserve to his aid. With this help the attack was beaten off and Shoan fire slackened on all fronts.

Dabormida now prepared for an offensive. The 3d Battalion, last of the reserve, moved up to reinforce the 14th. As the 6th Regiment moved down the valley the 3d Regiment, located on the spur east of Tucul, attempted to take the Tucul spur under cover of artillery fire, but without success. The 6th on its part drove the Shoans headlong down the valley, passed through their position and hoisted caps and handkerchiefs on their bayonets in celebration of victory. However the failure of the 3d Regiment forced the 6th to withdraw.

At 1:00 P.M. while reserve ammunition was being issued, an enemy column, headed by Galla horsemen and supported by artillery, moved into the valley from the east. A few well directed shots promptly scattered the hostile artillery before it was able to go into action. The 3d Battalion which had become badly intermingled with the 14th, experienced considerable difficulty in facing about to meet this threat from the rear. Despite their handicap the hard pressed battalion beat off the attack and succeeded in establishing a line with its left on Mt. Atgebat.

By 2:00 P.M. the Brigade was being attacked on three fronts. The men had been marching or fighting for 17 hours. No word arrived from headquarters. The prospect of reinforcement was remote, nothing remained but retirement. By dint of a final charge the Shoans were pushed back far enough to disengage the 3d Battalion. This unit then moved eastward up the valley. The 14th Battalion withdrew to a position abreast of Atgebat, covering in their turn the retirement of the 3d Regiment. From a position on the slope of Mt. Atgebat, Dabormida sent the last of his staff officers to De Amici with orders to hold the heights as long as possible. He was never seen alive thereafter.

The artillery had now expended all of its 130 rounds per gun. Some of the guns had retired with the first echelons; for those that remained there was no hope. The Shoans returned to the attack in overwhelming numbers. They drove forward until they were using the pack mules as cover from which to fire at the gunners and their sup-

porting infantry. The officers whose uniform rendered them singularly distinctive became special targets for the tribesmen. Nearly all the Italian officers were killed. Colonel Airaghi fell while attempting to free the batteries, of which only two mules—loaded with empty ammunition cases—escaped.

De Amici's command reduced to desperate straits was finally forced to retreat. His medical service having been destroyed before noon and his own plight virtually hopeless he was constrained to abandon his wounded. The prompt butchery and mutilation of the wounded afforded the retreating column a brief respite.

The final stand was made at the pass and on the ridge of Rebbi Arienni. Here De Amici fell mortally wounded. He directed his men to place him against the bole of a sycamore tree that had been Ellena's P. C. earlier in the day. And there he stayed.

Colonel Ragni of the 3d Regiment led the retreat of the survivors of the 2d Brigade toward Sauria. Near this place a last attack on the column forced the abandonment of the few remaining guns.

The desperate and long continued resistance of the remnant of Dabormida's brigade materially assisted in relieving the pressure on those columns that had retreated earlier. The pursuit, bloody while it lasted, was not pushed to its logical conclusion. There was too much loot to be garnered.

The Italians lost about 6,000 killed, 1,500 wounded,

and 2,000 prisoners, a total of 9,500 out of 17,700. The Ethiopian loss was estimated at 17,000. Prime Minister Crispi, held largely responsible for the rash attack which resulted in disaster, resigned with his ministry on March 5th.

General Baratieri was tried by a military court of six generals, which acquitted him of criminal intent or responsibility. However the court deplored the fact that the high command had been entrusted to an incompetent leader.

As for Menelik, King of Kings, he had preserved the territorial integrity of his savage country; he had destroyed a modern European army with an untrained horde of primitive tribesmen; and, unknowingly, he had won for his people a freedom from foreign aggression that was to last until the year of grace 1935. Indeed it was not inappropriate that the Czar of all the Russia's should bestow on this swarthy African warrior his highest military honor—The Grand Cordon of St. George.

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THE ENTIRE AIM of military organization is to reduce everything to a perfect system, like a well-oiled machine. But the equally determined aim of the enemy is to blow this fine mechanism into a pile of junk.—WOODS

Three Salutes

By MATEN G. GERDENICH

Some years back, on a voyage, a cosmopolitan group, composed for the most part of men who had had military service, were discussing saluting. In the course of discussion a former officer of the Austrian Army told the following story which I give you in his own words. — M. G. G.

SALUTING is like kissing, in that it is associated with varied emotions. During my five years of military life I never failed to salute my superiors, but only three times have I saluted from the bottom of my heart. In all other cases there was some secret thought on my mind which made the salute no more than a perfunctory military convention.

Meeting my captain, I thought of the day when he declared the bores of my big guns were not as immaculate as they should be.

Passing my major, I remembered when he criticized the movement of my battery at an inspection.

And whenever I saluted my colonel, I relived the three sorrowful weeks he made me spend between the lonesome walls of my room because I thought, in a slightly clouded moment, that the big wall mirror was a window out of which an empty champagne bottle might be conveniently tossed.

The three instances when the heart was in the salute were different.

The first one happened when my childhood dreams were realized, and I first dressed in a bright new uniform. As I walked down the Kartnerring I was eager to encounter an officer and my wish was quickly gratified. I tried to show by my salute that I was a real soldier. My disappointment was great when he told me to go home and diligently practice the salute.

Years later came the second occasion. A school friend of mine who had been discharged from the army (some young-blood offense) came back from South America, enlisted, went through all the dangers of war, and, having won all the decorations that a brave soldier could get, was again commissioned. When I met him, I saluted, with real feeling, the heroism in him.

It was on a hot July day in 1916, during the final stage of the Brussilov offensive, that I had my third opportunity to put my heart in my soldier arm.

The nearest way for the Fifth Russian Corps to reach Lemberg was by the Radiszlawow—Brody Line. We had a strong position on our side of about one mile of boggy river terrain. And by that way was ordered the Second and Fourth Garda Regiment to build a bridge through Graberka in the direction of Brody.

The gardist, once selected for guarding the portals of the Czar's Palaces, all tall boys and heroes, attacked three or four times a day. Step by step they built a causeway into the bog with their own brave bodies. On the fourth day they reached the solid ground on our side and there fought better than fresh troops would have done.

About three hundred gardists were made prisoners.

Of these, thirty were selected for examination, and I was charged with that duty. It so happened, however, that the division commander was present also.

I lined up the thirty tired, muddy and bloody men and questioned them. For the most part they would not answer, or if they did, they told nothing.

Approaching the sixth man, I saw him take a piece of paper out of his blouse pocket, put it in his mouth and start to chew it. I sprang to him and, pressing my pistol to his chest, ordered him to spit it out. Instead of obeying he swallowed the paper. I turned with a questioning look to the Major General who had moved to my side. He asked the prisoner what he had swallowed.

The prisoner replied "I don't know."

"What troop are you from?"

The prisoner looked into the general's eyes without giving an answer.

"Very well," said the general, "I will ask you three more questions. If you don't answer these at once I will have you riddled with bullets. Think it over."

The general allowed a moment for the import of his words to take effect and then asked:

"Why did you not destroy this message before you came so far? You had enough time and opportunity."

"Because I hoped our troops would make me free again. They must be here very soon," was the reply.

"What was your last detail?"

"Runner."

"To what troop did you belong?"

Silence.

"Man, do you realize what it means not to answer?"

After a while: "Yes, sir, I do. But I think whatever a man's destiny is, whether he has chosen it of his own free will or whether he has been placed at it by the circumstances, there it is his duty to remain and face the danger, without thinking of death, or any thing except dishonor."

The general faced about. There was a strange look in his eyes as he surveyed our men who waited with tenseness for the next act of the drama being played before their eyes. Then he spoke: "Soldiers you have seen what this prisoner has done. I wish that all of you may be such as he. And now we are obliged to give honor to heroism."

Commanding all present to follow his example he faced the enemy soldier and saluted.

I raised my arm with an emotion I never felt before. In this pale prisoner I saluted Achilles, Mucius, Scævola, Lehel, the Grenadiers of Napoleon. . . . *Omnes heroes perpetuos.*

Enjoying my vacation on an estate two years later, I met a peaceful farmworker who was none other than the hero of the former Russian Second Garda Regiment. He told me that the message he had swallowed was a circulandum from his regimental commander to the company commanders. He did not know what orders were in it, as it was forbidden for runners to read the message they were carrying.

Seven Years A-Scoring

By CAPTAIN HOMER CASE, C.A.C.

AS a group of officers walked away from a particularly fine target practice at Fort Mills, one of them commented on the uniform excellence of the practices fired during the 1934 season and wondered if the fact that there was no general rating of batteries that year had anything to do with this. The speaker ventured the suggestion that the strain of competition so distracted the minds of officers and men that their work suffered; and thought it possible that a return to the pre-1927 days when batteries were not shooting for a score would be a benefit to the Corps.

For many years prior to the World War, scoring for target practices had been used, but with the resumption of regular firings after the war no scoring formula was used until 1927. For that year all practices were scored, the seacoast score bearing many of the earmarks of the one then used by the Navy, with emphasis on hits—in fact, without hits the maximum score was 50 out of a possible 100, with a rating of "Poor." From year to year the score has been changed and refined until today a good pattern, fast firing and a careful preparation of firing data are more important than hits, which in a short string are so dependent on chance.

But the rating of Coast Artillery batteries as "Excellent" or otherwise had been revived as early as 1921. Ratings were given by district commanders, usually on the recommendation of regimental commanders, and the inequalities that arose from this system had much to do with the adoption of the score. In the absence of a uniform basis of comparison the standards of each district were different. In one district fast firing was all important, while in another any practice was rated as "Excellent" if the lateral deviations were small and the shoot looked well from the battery. One district commander looked at nothing but personnel errors, while in a certain district it was commonly believed that the rating of the battery depended upon the ability of the Mess Sergeant to prepare rice in 107 different ways. During 1926 district commanders rated all batteries as before, but the Chief of Coast Artillery caused all practices to be scored by the formula already adopted for use for the following year and used these scores for the final rating by his office. The lack in uniformity in rating between districts is shown by the fact that out of 72 practices rated as "Excellent" by district commanders, 33 were given a lower classification by the War Department and nine were changed from "Excellent," the highest, to "Unsatisfactory," the lowest. These variations were poor for morale, and allowed emphasis in different districts to be placed on different objectives, in some cases those of minor importance.

But from the larger aspect of the efficiency of the Coast Artillery the value of the scoring system must rest en-

tirely upon the results of target practice. If in the long run the shooting of our batteries has noticeably improved the score has justified itself. If not, it serves no useful purpose and should be discarded, for there is no doubt that any ironclad mathematical method of rating batteries, however carefully devised, is sometimes unjust.

In the long run the efficiency is measured by the "hits per gun per minute." In battle, this is the factor that sinks battleships and brings down airplanes. In target practices this should be the measure of excellence.

The accompanying charts show graphically certain important features of seacoast target practices fired since 1925.¹ From them an answer to these questions should be sought: Are we (1) shooting faster, (2) at greater ranges and (3) are we making more hits per gun per minute than we did before 1927? Data for practices fired prior to 1925-1926 for certain elements were not available. The graphs include all published results of target practices for the types of guns indicated. Data for all types of guns were originally tabulated, but for certain weapons the number of practices fired each year were so few or the conditions for scoring had varied so much from year to year that the results meant little. Thus for some years but one 12-inch barbette carriage battery was fired. For several years 155-mm. guns used either the destroyer or the transport target for determining the number of hits, depending upon the range. For this weapon hits cannot properly be compared. The data plotted on each chart include all that can be used to make the picture complete.

SEACOAST ARTILLERY

By 1926 the standard of excellence of seacoast artillery target practices should have become stabilized. Most of the battery commanders had been in the service nine years, with considerable experience in conducting firings. The rapid turnover of enlisted men caused by the demobilization and by the forced discharges in 1922 had stopped some years before and the battery personnel generally was well trained. No new matériel had been issued for several years. If the system of scoring had not been put into effect it is reasonable to assume that from year to year there would have been a small increase in the general standards of target practice, but that no radical changes would have taken place. It follows that any marked changes that took place after 1926 were caused by the adoption of a scoring system for rating target practices.

The charts speak for themselves, but some of the outstanding points deserve comment.²

¹A later article deals with antiaircraft practices.

²To include 1928 the calendar year was the target practice year, during 1929 this was changed to the fiscal year. The practices fired from January 1, 1929, to June 30, 1930, were grouped together under the fiscal year 1930. This explains why the year 1929 does not appear on the charts.

resulted is clearly shown in the chart. For 1930 the *average* rate of fire for all types was approximately two-thirds of the present (1935) K factor. At the time when many felt that too much emphasis was being put on speed the accident occurred in Hawaii which many laid to excessive speed, though this was never proved. Soon after this the time component of the score was changed, raising the K factor and giving only a small bonus for firing faster than that rate. Since that change the average time per round for all calibers has steadily increased until in 1933 the mean rate was almost back to the 1926 figure.

Chart D—Hits per gun per minute—In the long run the final index of the efficiency of an artillery battery is the hits per gun per minute that can be placed on the target. From a statistical point of view hits per gun per minute result from the combination of the percentage of hits and the rate of fire. Chart D is merely a combination of Charts B and C. As in Chart B the graphs for the different guns jump up and down so much from year to year that they mean little; the graph of means is clearer. Beginning with 1927, the year the score was first used, hits per gun per minute increased each year until 1931, the value for that year being almost three times the mean of 1925 and 1926. For 1932 and 1933 the values fall off each year, finally falling below 1928 and exceeding only 1927 and earlier. While the percentage of hits varied somewhat from year to year, generally increasing slowly, most of the increases in hits per gun per minute up to 1931 came from the constantly increasing rate of fire. In a like manner the decreasing rates for 1932 and 1933 came from the decreased rates of fire for these years.

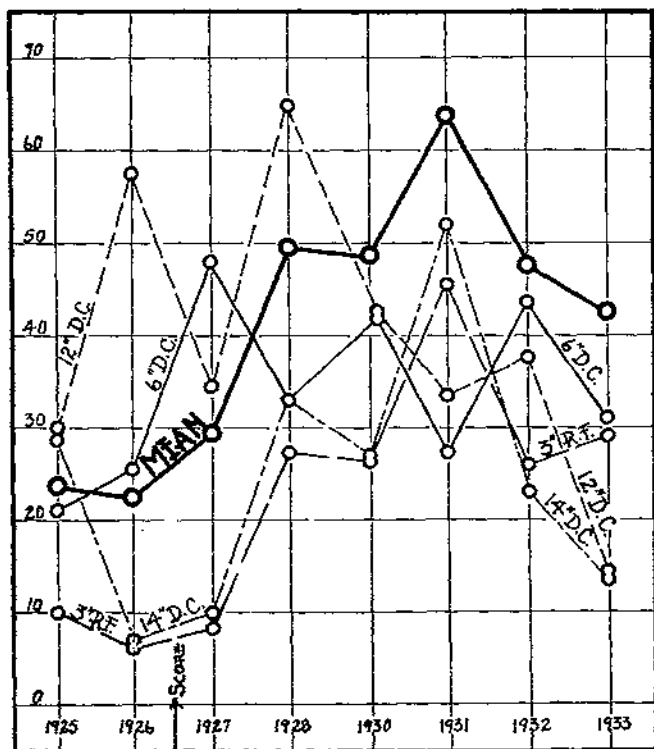


CHART D—Hits per gun per minute on the broadside target for seacoast target practices. Graphs for different guns are not plotted to the same scale

DISCUSSION

Some 200 practices were considered in the analysis of the percentage of hits and the hits per gun per minute and almost 500 practices were considered in plotting ranges and rates of fire. Still there remains a feeling of incompleteness of data. But it is all that could be used to any advantage. If erroneous conclusions arise from them the fault is in the lack of more complete data or in the interpretation of the data or both.

The clearest fact that stands out is that there has been a very marked increase since 1926 in the effectiveness of Coast Artillery fire if target practice results can be taken as the measure. For the period from 1928 to 1933 the hits per gun per minute were over twice as great as for 1925 and 1926. Based on this alone the adoption of the score has wrought a very marked change for the better. It has brought a unification of objective and training that would have been impossible with the old decentralized method of district control.

When the gains are broken down into their component parts it is found that the principal change has been to make batteries shoot at greater ranges and to shoot very much faster. The first makes our target practices more like actual war and tests matériel and methods of training to make sure that they will not fail when firing at long ranges. The second makes certain that when an enemy comes within range—and the target almost certainly will be fleeting—the maximum volume of fire will be delivered.

The most surprising fact that comes to light is that since

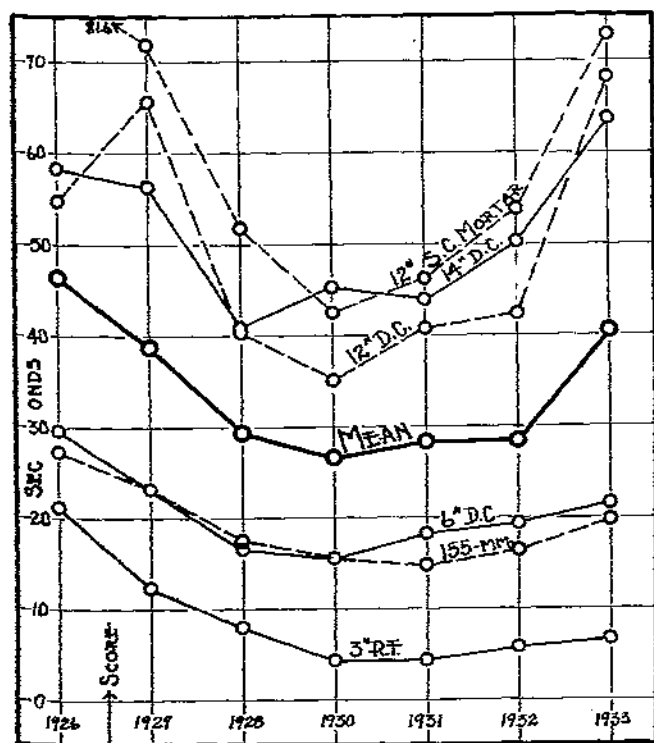


CHART C—Rates of fire for seacoast target practices showing time in seconds to fire one shot

1925 there has not been any material increase in the percentage of hits. All this time we have felt that we were getting more and more accurate in our firing. It is probable that the adoption of the score has not really had any effect on the percentage of hits. In 1926 our training and methods of fire control certainly were not perfect and we could have expected some reasonable improvement during the following years. If, during the next eight years, produced as battery commanders were by the score, we did not materially increase the percentage of hits, it is rather certain that with our present equipment and methods of training they will not improve in the future. Certainly officers and men have done their best during these years of serious competition.

The fact brought out that should cause the most thought is that there has been a material decrease in the hits per gun per minute since 1931. For 1932 and 1933 there was a slight decrease in percentage of hits and a very material decrease in the rate of fire. In each case the figures are too consistent to allow for the theory that they might be nothing but variations from year to year. No one can give a full explanation of this decrease in effectiveness, but two causes seem to be most probable; first, the general falling off in training due to insufficient ammunition; second, the almost universal tendency of batteries to fire target practices at a rate slower than the maximum rate.

The very material decrease in firing conducted by Coast Artillery batteries does not appear in any of the charts, but it certainly has affected the state of training of personnel. With the six types of guns shown in Chart A, 110 target practices were conducted in 1926, 69 in 1928 and 45 in 1933. While there were but 41% as many practices in 1933 as in 1926, the average number of shots per practice decreased by over 15% during the same period. In 1926 each major caliber battery fired two practices. In 1933 they fired but one. By 1933 this constant whittling away of the target practice allowance had an adverse effect. The small allowance for 1934 and the even smaller allowances for 1935 will tend to lower the general training level. The principal cost to the government for the artillery protection of its coast line is the cost of maintaining officers and men and the capital costs of armament and service ammunition. The cost of one additional target practice for a battery will not exceed two or three thousand dollars a year. The lowered effectiveness of seacoast artillery fire does not justify an attempt to save this sum.

Many thoughtful artillery officers believe that the score adopted in 1931 condoned a rate of fire slower than is warranted. Those who favor the present policy of slower firing argue (1) that the rates set by the K factor are

really as fast as can be sustained for considerable periods of time and (2) that a high rate of firing results in accidents that cannot be tolerated in peace time. To the first argument it can be said that it is extremely improbable that any seacoast battery would ever be called upon to fire on the same target for a very long time. Targets probably will be fleeting, and if any battery can fire the equivalent of the battle practice allowance the target certainly will be disabled or out of the field of fire. A battery that can fire rapidly certainly can fire slowly; the reverse is not true. To the second argument it can be replied that firing guns is a hazardous occupation. We do not stop running automobiles because some one is killed occasionally. The accident at Battery DeRussy in 1910 was due to the failure of a safety mechanism. The accident in Hawaii about 1930 probably was caused by a defect in a safety device (the firing mechanism) that had never previously been detected. In each case if there was excessive speed it merely brought these defects to light. Increased care in training men in safety measures and testing equipment will prevent accidents and at the same time give the added hits per gun per minute that fast firing brings.

The reasons for high rates of fire was stated ten years ago by an officer whose diverse talents have taken him to another corps.² Major Colton pointed out that there was no logical reason why fast firing should decrease accuracy; that to the contrary most of the sources of error were independent of the rate of fire and that the faster the gun was fired the more nearly a condition of firing at a fixed target was approached. He concluded with the observation that "our guns should be fired as fast as they can be loaded." His arguments are borne out by the charts with this article. The hits per gun per minute—the measure of effectiveness—rise and fall with the changes in the rates of fire. A change in the score that will cause a 25% increase in the rate of fire will increase the hits per minute by 25%.

CONCLUSIONS

1. The adoption of the score in 1927 has more than doubled the effectiveness of Coast Artillery fire.
2. This increased effectiveness has arisen mainly from increased ranges and increased rates of fire.
3. The percentage of hits are not affected by the rate of fire.
4. The maximum hits per gun per minute can only be obtained by firing at the maximum sustained rate, and the score should encourage firing at this rate.
5. Inadequate ammunition allowance for target practice is reducing the effectiveness of the Coast Artillery.

²Coast Artillery Shooting, by Major R. B. Colton, Coast Artillery Corps. COAST ARTILLERY JOURNAL, May, 1925.



"Pay close attention to the answers of the prisoner, Tanks"

The Tank Ju Ju

By CAPTAIN JAMES A. MCGUIRE

SINCE the name had to begin with a "J," I selected the sinister death-sign of Africa. What more fitting symbol for a war chariot, a fighting tank? I found a confederate in the letterer of the battalion, who, besides inscribing the name on the nose of my new tank, painted a large, white, grinning skull between the words. We both admired the artistic touch. I recollected my first tank had a similar handling—a fairly suggestive gibbet had stood out between the words "Judge Jeffreys." This gallant war child had been sunk by enemy shell fire south of Achiet-le-Grand when we tried to stem the Hun avalanche in March.

A tank in action gives its crew the same thrill that must have been felt by the drivers of the old chariots, when with a bowman or two, they tried to do what we were supposed to do—spread confusion in the ranks of the enemy. They had two horses, we 125; they had individual armor, we group. The idea is old.

The Ju-Ju, a Mark V, male, was the latest development of its kind. Powered by a Ricardo engine and equipped with a one-man control, it was a thousand miles ahead of the old Mark IV which needed four men to guide its destinies. In short, the Ju-Ju was a satisfactory vehicle and a formidable offensive weapon.

As to the historic importance of the Ju-Ju and its brethren, I can do no more than refer you to the pronouncement of the great Ludendorff. Said he: "The tanks broke the back of the German army at the Battle of Amiens!"

The tale that follows sets forth the experiences of one tank—one tank out of the vast herd that stampeded through the thick ground mist of the early August morning that ushered in the decisive Battle of Amiens.

Our battle front in this effort to relieve the threat on Amiens was eleven miles long. On the left (north) it started just south of the village of Motlancourt, which is north of the Somme River, and extended in a zigzag wave to the southward. Sandwiched between contingents of Americans, Australians, Canadians, and various French units, were most of the British line regiments. The 10th Tank Battalion, my own, was assigned the post of honor in the assault—the extreme left end of the attack. The flank of any storming army is a point of vital weakness because a successful counter attack delivered here can shatter the entire effort. For instance, the German counter offensive at Cambrai wrecked one of the neatest large-scale surprises of the war. This attack, driving in through an unguarded end, nullified the huge initial gains of the British.

On the evening of August 7, the night before the battle, I listened with a fluttering heart to the doubtful distinction that was being conferred upon me. Our major

The Infantry and the tanks were developing a real brother-in-arms feeling.

had designated the Ju-Ju to fight on the extreme left of the battalion; this meant the left of the entire attack—a place for glory and for other possibilities well known to old soldiers. Well, we would hand the Hun the same dose he had treated us to in March, and, with luck, should see him leg it over those same Somme ridges to his rear areas or to his ultimate hope in the hereafter. At mess the C.O., excusing himself for talking “shop,” asked if there were any questions on the morrow’s “show.” Having answered the few we asked, he added:

“Better eat heartily, gentlemen, for we are leaving early in the morning and there is little likelihood of obtaining any breakfast.”

A trace of grimness threaded his usual affable tones. He might well have mentioned that the meal would probably be the last for many of us.

I strolled over to the tank park where the men and tanks were camouflaged among the trees. I had in mind a last pep talk for my crew. The technique of the British officer calls for it. Optimism must be registered at all times before the men, no matter what one’s innards may be registering. The procedure is supposed to have a cumulative effect on morale. The optimism instilled in the men returns to the leader in the same general form. Eventually you begin to believe it yourself!

I assembled my men and began. Do not think that after three years on the Western Front I harbored any idea that the enemy was ready to break. Nevertheless, I hammered along this line until my glance happened to stray to the edge of the group. There the black eyes of my batman, Pringle, somewhat amused and decidedly unconvinced, looked into mine. A certain admiration was there too. He was no mean booster himself when it came to citing exploits of his King’s Own Scottish Borderers. A recognition of the craft was what he was giving me, for he had heard me talk before as a member of the crew of the old “Judge Jeffreys.” His droll Scotch humor was having an inning. I finished my talk with a flourish. A chronicle of later events was to prove that the crew of the Ju-Ju had no need of my Pollyanna effort.

Our tank park in Heilly was virtually a semi-swamp caused by the overflow of the nearby Somme. Just past midnight of Z-Day, August 8, all the personnel of the 10th made their way thither. The tanks were parked under heavy trees. We began tuning them up. The roar of the powerful Ricardo motors made conversation difficult. We yelled in one another’s ears.

Soon the tanks began lumbering from their shelters. The edge of the park was very bad. Most of us needed cables and unditching beams to get onto the higher ground. We must have looked like weird prehistoric monsters leaving their slimy lair for the night’s prowl. A check on the dry ground showed we had all made it.

Following one another, avoiding roads which were taboo, we trekked eastward. Most of us elected to walk along outside our tanks, breathing in with the cold, wet, morning air the hot petrol fumes from the exhausts.

Soon enough we would be cooped in for what might be our last jaunt.

Suddenly a tank stopped and then another. Two drivers had fainted from the heat. Replacements clambered in and the column lumbered on. One defect of these new Mark V’s was only too apparent. There was not enough ventilation to carry off the heat generated by the powerful engine. If the heat was stifling enough to bowl us over in the cold, grey dawn, what would it be when the sun got up and all the ports were closed tight?

Stragglers came drifting by like flotsam on a restless sea. Transport streamed to and from the forward area like ghostly wraiths in the early morning mist. A group of walking wounded stopped and watched the tanks crunching and groaning along. They made no comment. Soon the old familiar rumble of the guns became clearer. From time to time the lowering sky was split with crimson light as nearby batteries went into action. Despite the relative quiet, a sinister something brooded over us. Many nights were like this on the Western Front when we sensed the lull before the storm.

Word came down the column, “No talking.” We came upon white tape laid on the ground—to guide the following infantry. We were getting close. A runner appeared and we changed direction, moving through a labyrinth of shell holes. Flares broke not far distant.

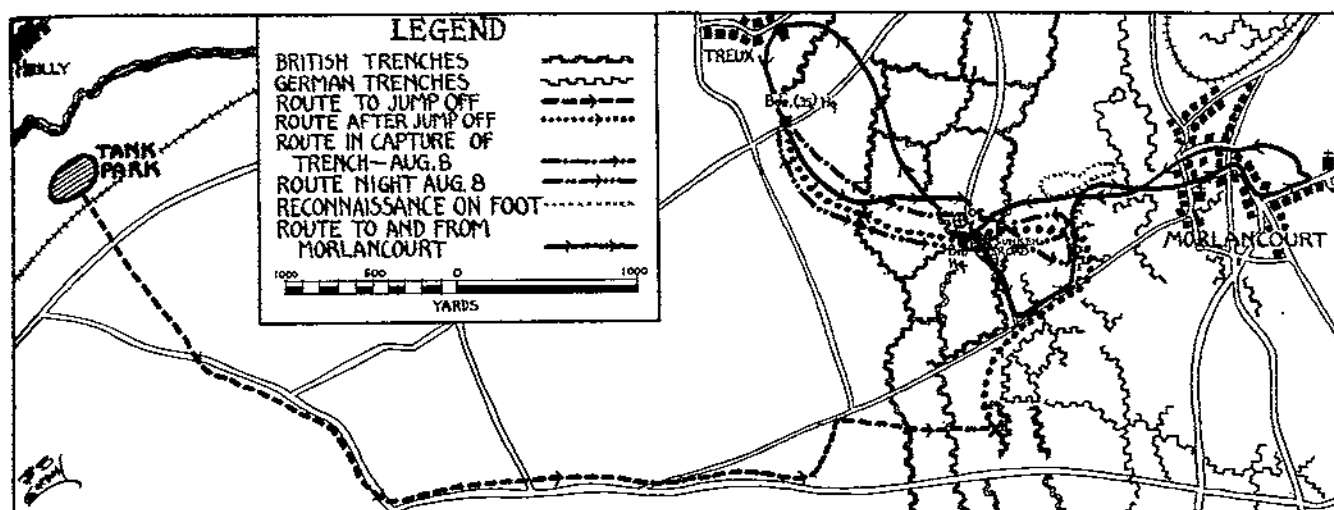
Suddenly we were there. The major called a halt. Each tank was assigned its position. Crouching on the jump off line, we waited for the curtain to go up.

The major called a whispered conference in the lee of a tank. The time for the kick-off was set at 4:20. I glanced at my luminous dial. A matter of minutes remained. Tank commanders moved off to their stations with a final “Cheerio!” I made a last check on the Ju-Ju. My driver, Ridout, surprised me by pointing to the tank’s compass. The nose of the bus was toward the north, not the east! I hastened back to the major who explained why. Calling the crew to me I sat on the ground with my back against the warm metal of the Ju-Ju. It felt good in that chill air. Hardly above a whisper I talked, mostly to my driver. The enemy had recently captured a piece of high terrain directly to our front. Our section would have to trek north for a short distance, then swing to the right, as “Squads right” is done in the infantry.

“Ridout,” I said, “be sure to watch the tank on your right; when it swings right, we do! Remember we are on the extreme left flank and if we fail to keep in touch with our right, we are in the blue!”

Everything was ready and the men were in their places. Planes hummed low over us like giant bats out of the night. They served to drown the clatter from our tanks and keep the enemy guessing.

Suddenly the sky in back of us turned red as if lit by huge torches. Our batteries had gone into action! What an inferno! The roar was deafening. The tortured air above us screamed and moaned as a rain of projectiles sought targets in enemy land. A shrill whistle pierced the din. Tank engines came to life with spitting crashes. We



The Jaunt of the Ju-Ju

were off! I had almost forgotten I was an actor in this show—so breath-taking had been its crashing overture. I dived through the sponson door which clanged to on my heels and took my position in the center of the tank with my eyes on a level with the slits in the cupola. As I became accustomed to the murk, I looked down and saw my men—good lads and true—in their places. You need such in a game like that.

I could visualize that long line of ours stretching away to the south, across the old Somme Canal—British, Americans, French—soldiers of many lands, all tense as coiled springs . . . waiting . . . waiting. Then the signal and the Devil's playground was suddenly peopled with scurrying figures. Some went "over" for King and Country, some for Democracy, some for La Patrie, some for Allah; a few probably went over simply because they were essentially sons of Mars.

The white, ghostly radiance of a Boche rocket brought out in weird cameo the barbed wire and grisly reminders of war in No Man's Land. The light lasted only a minute or two and then the darkness closed in deeper than before. Men breathed easier in the gloom. Seconds passed and then another flare broke with a tiny "plop" overhead. Now the German trenches literally spouted flares and colored lights and his machine guns began their staccato along his entire front. Too late! Our tanks were riding his trenches and panic went before us. On the left and following the 10th came the 7th Queen's (Imperials), and on the right the American 33d Division. Proper play boys these for the chariots in this staggering smash at the enemy.

In the Ju-Ju we could sense the battle raging about us by the dull thuds of exploding shells and the vicious spatter of machine-gun bullets on our sides. The roar of the engine was tremendous. I shared a small seat with a corporal of the Queen's who acted as liaison for his outfit which was following us. I stretched up and tried to discern objects outside, but the mist had grown too thick to make out much. I touched Corporal Bayley on the elbow with my foot and shouted at him to warn Driver Ridout

to keep close in to the right in order not to miss that turn. He was back in a jiffy. His face told me before his words did. We had lost contact! In the blue! The post of honor and we had flunked it. But Ridout was not too much to blame at that. The fog had thickened too quickly for calculation. It was simply one of those unfortunate and unforeseen developments that characterize every battle.

We bumped and lurched over German trenches but saw no sign of the enemy. After a bit I decided to have a look around outside to get our bearings.

The Ju-Ju slowed down to an animated waddle and I squeezed past Corporal Bayley and out the sponson door. For good and sufficient reasons, I directed that the door be left open. The cool air was a relief from that hot interior. I jerked loose my battle map and with my compass tried for an orientation. Suddenly I stopped in the very middle of the process. I saw a group of men pushing their way toward me through a curtain of fog. Was it an enemy patrol? My hand stiffened on my Smith & Wesson and then my pent-up breath went out in a glad exhalation. I had recognized British Tommies led by a "leftenant." We were both glad to see one another. The infantry and the tanks were developing a real brother-in-arms feeling. But more than that, we had another tie that binds—both of us were lost.

The infantry officer and I sat on the edge of a new shell crater and compared notes. We agreed that we were somewhere in the vicinity of Fritz's second line, but well north of our objectives. An infantryman approached and asked permission to put some of his gear on the tank. Apparently he had missed nothing when the quarter bloke handed out the jewels of combat—shovels, picks, sand-bags, and all the other gadgets of this complicated war. With my approval he turned back to the Ju-Ju which was slowly waddling about. Two minutes later a terrified yell came from the tank. Halfway up the back of the bus sprawled the lad who had too much to carry. He had been caught in the seat of his pants by wire picked up by the tracks. He was secure, to be sure, but

far from happy. While I ran in front to signal Ridout to halt, our unhappy doughboy gave a louder peal than before. In order to stay his undignified progress he had grabbed the hot exhaust pipe.

Since haphazard wanderings in abandoned enemy trenches would gain us nothing, the infantry officer and I decided to make for the nearest headquarters for instructions. Heading northwest-by-west we began trekking for our lines. By this time we had been in the enemy's trenches several hours. The Boche, caught in this heavy surprise attack, had "downed tools" and departed for safer places—that is, those who had been fortunate enough to escape our paralyzing barrage. The evidences around us indicated that many had not.

Backward-ho we encountered nothing much except some enemy artillery retaliation which was fortunately well scattered. Then I detected the sweet, crushed-apple smell of phosgene gas, which explained those spaced shells. Neither of us were using our gas masks, which we regretted later. I continued outside with our infantry friends. We almost fell into a sunken road, although the mist was thinning somewhat with the rising sun. The Ju-Ju began teetering on the rim of the road, following the correct tank technique of easing the downward slide. Suddenly an excited, bareheaded, khaki figure scurried out of a black hole beneath the tank. Not seeing the other officer or myself he relieved himself of some pungent Cockney satire at the balancing Ju-Ju. Did we wish to bury for good and all his commanding officer and the adjutant of a very gallant regiment? Perhaps the grinning white skull gazing down at him unmoved brought out his pessimistic nature, for with a last volley of insult he disappeared earthward. Beyond question we had found a headquarters.

Entering the dark hole which was a dugout's mouth we cautiously felt our way down rickety stairs into the murk below. As we left the last step we saw the weak golden glow of a tiny candle. By this meager light we made out two British officers sitting at a rough board table—a colonel and his adjutant. We saluted, though this was not strictly necessary, and explained our predicament.

"Call up brigade, and ask what they wish done with these two officers," directed the C. O.

The adjutant picked up the receiver of a field telephone, talked and listened.

It was as quiet as a deserted cathedral down there in the bowels of the earth. The noise of battle belonged to another world. Oh, for a spot of breakfast to make this a corner of Paradise!

The captain's voice broke in on the meditations.

"Sir, the Brigadier says to have the infantry lieutenant report to the medical officer, and the tank officer report to the headquarters of the 35th Infantry Brigade."

"You gentlemen heard? Then please carry on."

I had clicked for more dirty work. I bade my chance companion good luck and negotiated the dugout stairs with heavy feet.

I found the headquarters after some cross-country work with the Ju-Ju.

There the brigadier questioned me. In answer I told him I would be pleased to function with him (which was the gist of his talk) if he would notify Tank Headquarters where I was, service my tank, and supply rations for my crew. He agreed quickly. He had a bandage over his eyes because of gas received early that morning, he told me. Then he asked:

"What is your name, Tanks?"

"McGuire, Sir."

At this he jumped up, grasped my arm, and hustled me across to a room cut into the side of the dugout entrance. Apparently this was doing duty as an officers' mess for several officers were seated around an ornate table, evidently salvaged from some nearby château.

"Gentlemen," boomed the brigadier, "meet a fellow countryman of mine!"

A jovial chorus greeted the introduction. The general was an Irishman, and, I later found out, a baronet to boot. He never asked where I was born, which was on Manhattan Island. So that ancient wise crack of "what's in a name" needs some revision, or else leave the Irish out of it!

I accepted a tot of whiskey. Ordinarily on an empty interior this would mean a sudden extinction of those faculties necessary for a sober contemplation of things in general. However, the gas I had inhaled earlier must have acted as a buffer. More drinks for various worthy causes were proposed and downed, but I still navigated under my own steam. I had no desire to eat. Perhaps some chemist can supply the answer.

My crew had been supplied with rations so I directed them to get busy and prepare their first meal of the day. It was now past noon. As I looked at the bewhiskered Ju-Ju fighters I knew what the outfit of Blackbeard the Pirate must have looked like. I briefly explained to this savage looking crew what the good general wished us to do. He wanted us to go "over" with his Cambridgeshire battalion which was scheduled to jump off in a short while. Since we were outside (to the north) of the battle, this attack was to be in the nature of a demonstration designed to conceal the location of our flank. The general was fully aware that another Cambrai counter stroke might be tried on his front, which *was* the flank. To give support to this suspicion it was reported that the German 27th Division was opposite. I happened to know that these were Wurttembergers, having met them in the Salient and on the Somme in 1916, when I was an infantryman. They were shock troops and ordinarily were not used for line holding.

I decided on a stroll to the front line to look over our next jumping off spot. Coming to some high terrain the battle vista unfolded before me. Shell-ploughed brown earth in the center of the picture, with a jagged village on the far side (which I later identified as Morlancourt) and just in front of it a zigzag line etched in black, brown, and white the enemy's trenches. Our own front

line was a short distance ahead of me with a dilapidated communication trench leading to it. Boche shells were landing in our line and in "No Man's Land." Shrapnel was breaking overhead. To the eye the entire area seemed deserted but other watchers, as did I, knew better. I walked back to the tank where it nestled in a hollow and told Ridout to move it just in lee of the high ground I had just left. Designating Corporal Bayley as second in command, I entered the make-shift ditch that served as a communication trench and waded and splashed along. Many figures sprawled in shapeless attitudes had to be carefully stepped over. At last, with a cramped back, I arrived at the front line. What a horror! Although I had seen plenty on the Somme, this place was the worst ever. Gory remains of what had once been cheerful, smiling Tommies were piled on one another in an indescribable shambles. An infantry lieutenant of the Cambridgeshires standing with his back to the parapet, stirred and spoke. I stated my errand.

"A bit of a mess," said the infantryman, with a gesture. "The Boche must have spotted us manning the trench and—" another wave of the hand.

"The brigadier instructed me to get ready with my tank and go over with you chaps at 1:35. A platoon from brigade reserve is on the way up. My bus is just over the ridge and is ready. Is that news?"

"No, a runner was just up."

I retraced my way to the Ju-Ju and gave Bayley and Ridout the final orders. I pointed out the best route down the slope to the fire-trench and gave them the time. I would climb aboard at the front line. My idea was to see that the attack was actually launched and then precede the infantry to the objective. The enemy had nipped several of these attempts by the Cambridgeshires that morning, evidences of which I had just seen. The crew were drinking coffee and nibbling hard-tack. I took some of the coffee and then my stomach started heaving—that gas. After a while I got up and went forward.

The Cambridgeshires were in battle order when I came along and all ready to go. I stood next to their officer, who clasped a whistle between his teeth and eyed his wrist-watch closely. A shrill blast! Up and over! The wild scramble up the parapet left me in the lurch. Once out of the trench, I ran to a little knoll to give the double-time signal to the oncoming Ju-Ju. Down the slope he came like a charging rhinoceros, his exhaust belching sparks and smoke. A bit late. Already those Cambridgeshires were high-tailing it over "No Man's Land." What if a machine gun started tapping off the death notes? I never saw gallantry surpassing theirs during a long stay on the Western Front. It is one of those cherished pictures one cannot find in the art galleries.



*Beyond question we had found
a headquarters*

As the Ju-Ju ranged alongside, the sponson door flew open with a bang and Corporal Bayley helped me inside. The bus slowed down only for an instant. Speed was needed to get ahead of that infantry before Fritz got busy with his machine guns. All of my bewhiskered lads were at their battle stations. Bayley readjusted himself against the tubing of his six-pounder. I found my seat and gazed through the turret slits. Then my knee was nudged. Bayley, somewhat excited, was pointing at his gun sight opening. I noticed he was getting ready to fire. I quickly grabbed his wrist and shouted into his ear:

"Let them all surrender, Corporal. We haven't enough men to fight with!"

A long column of mud-stained grey Boche, without arms or equipment, followed a tiny Cambridgeshire infantryman. Prisoners! What a covey it was—a couple of hundred at least. Then as I looked, the Boche swung away from their lone escort and headed back toward their own lines!

Like the flip of a gnat's wing I was at the sponson door telling Bayley to keep me and the Germans covered.

As in a subway rush I shouldered my way through the middle of that column. I cut a corner and placed myself before the four leaders, who were all under-officers. My school German was forgotten. I jerked my thumb over my shoulder and barked:

"Over that way, Fritz!"

Good soldiers, these, inured to stern army discipline, and I was an officer. So back the fours turned and obediently linked up again with the solitary infantryman, who never knew how close he was to having no prisoners to report when he reported them. Apparently he had not noticed the deflection of his "guests." The Ju-Ju with its guns menacing that batch of Boche, must have been the deciding factor. A sinister threat it was with its grinning skull, beneath which dangled a camouflaged German helmet, looking for all the world as if it were held in the white jaws. I watched until our prisoners disap-

peared over the crest of the hill. No chance of escape from there to the barbed-wire enclosures.

I took some big gulps of the sweet air before the iron door closed on me again.

Again the Ju-Ju barged ahead as fast as he could waddle. When we overtook the Cambridgeshires we found they had the situation well in hand. They were already reversing the trench and only asked us to iron out a few enemy machine-gun emplacements. This was done with gusto. A few more prisoners trickled by. When the infantry had consolidated, we headed back to brigade headquarters. The Irish brigadier was visibly pleased. Why not? His last platoon had turned the trick and captured three times its own number. Perhaps that comes under one of the so called Principles of War, Rule III: Surprise.

A little later the brigade adjutant came along and told me that the brigadier was in an adjacent dugout and wished to see me. We went down together. As an infantryman of many years standing, I always admired good dugouts—the deeper the better—a natural yen, I think, seeing that, in these days, belligerents do not confine themselves to spears and arrows. This habitable hole in the ground had originally been built by the Boche and it was a good one. Down into the chalk we trod until we stood in a large chamber. As my eyes became accustomed to the weak candle light I noted many figures standing about. Against the far wall were chicken-wire bunks, tiered like a ship's fore-castle. On the top one was stretched the long form of the brigadier. Near a table where the adjutant now seated himself, stood a small, wizened, disheveled Boche. In the background was an audience of brigade officers, the prisoners' guard, and a few batmen.

"Pay close attention to the answers of the prisoner, Tanks," cautioned the Brigadier, heaving around on his bunk to face me. In view of the fact that I had given him my name, the use of "Tanks" stirred a suspicion that it had some reference to my libations of brigade whiskey.

Then the brigadier shot questions at the prisoner in a fluent German. The Boche apparently had no difficulty in understanding the general. He answered quickly, and with a certain animation. The general gave rapid translations. It developed that our prisoner was very much put out with his superiors. They had deceived and misled him, so he said. He had been told he was to be sent to a bomb-proof job directing traffic in a peaceful spot.

Instead, a front-line trench had been his lot. Someone had done him wrong and here he was a prisoner. Accordingly he decided to be as nasty as possible and gladly told about dugouts and emplacements and gave other military information that would result in death to many of his countrymen. The Ju-Ju would be the instrument.

"Tanks," boomed this countryman of mine, "take your tank into Morlancourt tomorrow afternoon and do reconnaissance to verify the information that has just been given." As I gulped down his sad news, the brigadier added:

"I do not think you will find many of the enemy. He appears to be retiring."

There was an off-chance that he might be right about Morlancourt being deserted or thinly held, but I had a strong conviction that that hamlet was as full of Boche as a front-line soldier's shirt is of itchy-coo. However, officers and men in war are as expendable as so much ammunition and the answer required was: "Very good, Sir." After making it I turned to the adjutant to arrange the details.

A runner from the line appeared. The adjutant passed the message over. Business was picking up. A Cambridgeshire officer in the recently acquired Boche

trench asked if the "tank" would bring up some hand grenades, Stokes shells and a few other items. Of course it would, but an order to go to sleep would have been more in keeping with my ideas.

So it came to pass that, at dusk, the Ju-Ju sallied forth and delivered its load as per specification. Having done so another little job was forthcoming. An infantry lieutenant pointed off to the left.

"From the top of that hill, we are getting enfilade fire from a Boche machine gun. Could you attend to that tonight?"

"I will if the grade isn't more than 45 degrees." I replied "Tanks are not supposed to attempt anything steeper. The petrol wouldn't feed, and the tank weighs upward of thirty tons."

I explained to Corporal Bayley, who "would have the tank ready immediately, Sir!" A good soldier he was, with several wound stripes, and I made a promise to myself that I would recommend him for a decoration. Luck permitted that promise to be fulfilled.

The Infantry officer came along and we set out for a personal reconnaissance of the terrain in the vicinity of that troublesome machine gun. The slope was steep.



"Over that way, Fritz!"

and after puffing upward for many yards I sidled over to the lieutenant and whispered.

"Too steep. We could not make it."

Back to the Ju-Ju. Some starlight was flickering down now. Members of the crew were all inside, warm and cozy, and cheerfully chattering about something. Outside it was getting chilly. I knocked on the sponson door and told them the stunt was off for the night and to get a whack of sleep against the morrow. I grabbed a blanket and prepared to court slumber beneath the nose of the bus.

The grumbling of the guns was increasing as I scooped out a place for hip and shoulder on the floor of the sunken road. Would Morpheus take me in his arms? Not a chance! From the other side of the road one of our light batteries suddenly cut loose with a salvo. The lemon-red flashes seemed but a few feet above us. After a short interval the Boche retaliated. Then counter-battery work began in real earnest. All the shells seemed over by a fair margin, otherwise a quick shift would have been in order for us. For a brief while things would quiet down, then one gun would speak, and the intermittent hymn of hate would go on. A space—then crash, crash! Both batteries would send over everything they had like two boxers, each hoping to catch his opponent napping. During the occasional interims both sides used machine guns. Save for these brief lulls the firing spanned the entire night.

At last, stiff and sore, I rose and turned bleary eyes to the east where a slaty tinge heralded dawn. I knocked on the sponson and Corporal Bayley, within, voiced my unspoken commands. The Ju-Ju hummed, then roared, and docilely followed me back to brigade headquarters.

We found the brigade adjutant, up and about, and he put us in the way of rations for a scanty breakfast. Since we had nothing to do until noon, we went over the bus, took the guns apart and cleaned them, and tidied things up generally. I borrowed a razor and a speck of soap and did the unusual—I shaved! It was merely a gesture but it perked up the morale wonderfully.

Again the sun was high when a lieutenant of the Cambridgeshires appeared and informed me that he had been assigned to us a guide. He stated that he was thoroughly familiar with this sector and would sit with the driver to point out direction. As mentioned before, this was not our original battle area. Together we pored over a map, and together we made a mistake—a mistake that I hope was somewhat excusable, coming as it did out of many nearly sleepless nights. We decided that when we entered Fritz's lines we would select the village church (shown on the map by a small black square with a cross above it) as our orientation point. Most French villages boast but one church, and we assumed that Morlancourt was no exception. We were wrong. It had two!

When all was ready we humped off. The day was hot and the ground like a desert floor. A trail of dust billowed in our wake. The route we had selected, really the only one to get where we wanted to go, afforded no concealment at all, except when we followed a road that

boasted a few scattered trees. In broad daylight the sole hope we had of getting by was the unexpected. The enemy might not be watching such an obviously poor place for escaping detection.

The minutes dragged by and still we chugged along. Although all the ports were open, it was hell inside. I began to take deeper breaths as we crawled closer to yesterday's captured trenches in front of Morlancourt. Then we stopped under the cover afforded by a small rise of ground. We had made it! I got out. A dozen Tommies came forward with a corporal. It being the brigadier's idea that this place was deserted, these men had been detailed to take it over. Still following the letter of my orders, I played my hunch. I addressed these infantrymen:

"The tank is to make a reconnaissance of this village. My orders to you are that, if any resistance is encountered, you will immediately return to the trench. In any case it should not take long. We will be back for tea."

That "tea" thought was the touch of nonchalance meant to inspire confidence.

Everything was set. I climbed aboard and Bayley dutifully latched the door. We rocked over the trench.

It was hard going. The Ju-Ju lurched like a drunken man. An empty tin careened crazily across the metal floor. I tried to make out objects through the turret openings but the angles were too sharp. I saw either a piece of blue sky or piled masonry. Suddenly there was a grating noise overhead. Our unditching beam, carried crosswise, had worked loose and gone by the board. Something hit my foot. I looked down. One of my gunners had keeled over backward. On the other side another collapsed. Armor-piercing bullets? I jumped down quickly. No bullets, just heat. I loosened their collars and pulled them back from the guns. I got back to my post just in time to see through the turret slits, ragged bits of colored glass in a broken window. It was the village church.

The bus now found easier going and I noted that we were moving through the town square. Everything seemed deserted. A black oblong looked like a dugout entrance. I fired a couple of shots into it from my Smith & Wesson, and got quick action. Out spewed a torrent of Boche, not only from this dugout but from others in the vicinity. They raced through the square and down a road that led into the open country beyond the town.

Ridout, like the master driver he was, slowly saw-sawed the nose of the Ju-Ju toward that same exit—the broad road. All my guns were belching at once. What a racket! My six-pounders and Hotchkiss cut down those flying figures in batches. The firing ceased as suddenly as it had begun. That road was literally carpeted with grey forms. Some were crawling away to the side. Three things had happened: the general was wrong, I was right, and a Boche prisoner had his revenge.

The Ju-Ju resumed his progress. We turned down a partly cleared roadway. Running into a bit of open space the guns resumed their Devil's tattoo. This time the target was the crew of a Boche field battery. In the excitement

my gunners overlooked a piece of battle technique. Six-pounder shells should have been put into the wheels of the guns instead of all going to the personnel. The guns themselves present the greater danger. We found that out soon after. I bawled instructions to that effect to Bayley but it was too late. He showed me the broken extractor of his gun. It was out of action.

We were now in the outskirts of the town, with green fields not far away. As the bus started to turn again, the infantry officer came groping back to me. Although I did not hear what his lips said they spelled "lost." I decided to hop outside, take a quick peek at our balloons, hop back and head in their direction. Bayley opened the door and I stepped out. What a relief after that furnace! The tank was slowly turning around on a road. Before I could think of what I had come out for, local events took all my attention. There on the road, about 35 yards away, was a trench mortar on little wheels, with two Boche getting ready to fire at the Ju-Ju. One of these two lads spied me about the same time I spied him. I reached for my revolver, wondering why my forward machine gun did not take care of them. One Boche decided it was no place for him and started running at a creditably fast pace in spite of his jack boots. The other one, who apparently had not seen me, carried on. Meanwhile, in back of me, another actor made his presence known. A Boche machine-gunner began to spatter the Ju-Ju with machine gun bullets. He had withheld his fire until then, thinking perhaps that I had come out to surrender, when he saw me reach for the old Smith & Wesson he lost that idea. Bayley spotted him and yelled:

"Come back, Sir!"

I moved with lightning speed. A Kellerman dive into the old smelly bus and the door slammed as machine-gun bullets drummed against it. Suddenly a rifle was thrust up in the hole used for disposing of the empty casings. Bayley's revolver spit once and the gun disappeared. It was up to Ridout now, for the direction of our balloons was still a mystery to me. Fritz must know by now that this was something in the nature of a lone serenade by one tank. He was hitting us with everything he had in the way of small arms. Bullet splashes illuminated the interior like fireflies in a tropical gloom. Bayley pointed to some burns on his arm from these splashes. I pointed to some on my face—just skin-breaks. Then a bullet smacked the engine between my legs—armor piercing! Back we came to where that light battery was and there were the gunners frantically swinging the guns around so as to bear on us when we came by. Ridout saw them and to avoid giving them a target, he suddenly swung the tank around on its heel and drove straight through a house and then a barn! Luckily there were no cellars! The corporal drew my attention by barking in my ear:

"The six-pounders are out of action and no ammunition. One Hotchkiss has a bent barrel and another has a jam. The machine-gun ammunition is about all gone too, Sir!"

It was up to the driver. If he failed us it meant death

or capture. Just about then the heat brought me to my knees, but I was able to sag back to my seat. My mouth had a growth of fuzz. There was no water left, most of it having been sloshed over the first two men who had fainted.

The tank seemed to hesitate, then lurched forward again. With an ear-splitting crash an avalanche of dirt, masonry and timbers hit the top of the Ju-Ju. We had ploughed through another house or part of it.

The dust settled and again I glanced through the slits. What a glorious sight! There stood a red-faced fellow in a bit of trench, under a wash-basin helmet—a British Tommy! Unbelievably he stared at this monster coming out of the enemy's lines.

We lumbered to a halt in the lee of the same hill we had started from several hours ago and tumbled out. Then we removed our still inert gunners from the stifling interior. Ridout, gallant lad, was speechless. He just lay on his back and looked up at the sky.

An infantry subaltern of a Scottish regiment approached.

"Where did you chaps come from?"

"Did a reconnaissance in that village for the brigade."

"Have a shot of this." He passed us a bottle of nectar, although that name did not appear on the label. Only one of my crew took a nip. Even the rejuvenated gunners declined. This passing up a drink was not an uncommon thing on the Western Front for booze and shell-shock were often bosom pals.

"We are going over at five. Why not come along?" remarked this gentleman from north of the Tweed.

"Sorry. We must report back to brigade."

Then, I don't know why, we shook hands silently.

I got the crew into the tank and we began to trek back. Passing through a cluster of houses, one of the boys jumped out and went into a ruined dwelling. I thought perhaps the strain had affected him, but he soon returned with a small chair in his hand and a stove-pipe hat on his head and signalled to Ridout to stop. I did



Luckily there were no cellars



Banded words with the passing infantry

not interfere because I was feeling that way myself. Solemnly he climbed on top of the bus, plumped down the chair and installed himself thereon. From his perilous perch he banded words with the passing infantry.

We came to our old sunken road and then to a battalion headquarters of the 35th Brigade. I reported there so they could telephone in to our own outfit. While waiting outside a group of walking wounded came by. One, a corporal, disengaged himself and came to me. It was Reed, one of my old "Judge Jeffreys" warriors.

"You did a fine show, Sir! At first we thought you had been taken prisoner."

He was referring to my two-day absence from the battalion.

"Thanks, Corporal. Where did you get that?" indicating his chin which dripped blood. He was holding it in stiffly while he talked. "Shrapnel," he informed me. Think of a chap forgetting himself, when wounded like that, to congratulate his old officer about a show! It is an exhilarating thing to meet men of Reed's caliber. I chased him off to the dressing station since Fritz's barrage would be due as soon as this new attack developed. Reed was a simon-pure fighting man from Ohio.

A runner dashed up. I was to report to brigade headquarters.

I directed Ridout to zigzag back to the 35th as those enemy balloon observers might be awake now. I was right. An artillery observer tried to bracket the Ju-Ju on the way back but the Boche had buck fever. Perhaps it was a tribute to the havoc wrought by the Ju-Ju in Morlancourt. At any rate the zigging of the bus was too much for the Boche artillery. I tried to time the turns of the Ju-Ju myself but had no better luck than the enemy. Ridout outguessed everyone. In this game of tag he was not to be "it." When I finally saw the old bus vanish over the top of the ridge a heartfelt sigh bubbled up from the depths of my diaphragm.

In spite of my fagged condition, I rather enjoyed my walk back through the straggling transport.

Outside brigade headquarters I saw my Irish brigadier

talking to another general. I gathered he was waiting for me. He hailed me cheerily.

"I say, Tanks, come over here."

I came up and gave him the best salute I could muster.

"Let us take a look at this great tank of his," remarked the brigadier.

We circled the Ju-Ju. He certainly looked the part of a battle-scarred war wagon. Everything on the outside had gone by the board. The unditching beam and the Boche helmet that had gaily hung beneath the skull were both missing. In the back there remained but a few splinters where a wooden box of hand grenades had been. And then the relieving brigadier remarked:

"By Jove, the thing is nickel-plated with bullet-splashes."

I was told I could report back to my battalion. Both officers shook my hand cordially and thanked and praised me too much. After a strain this is liable to make one unglued.

I was preparing to get aboard when a Tommy who had been standing in a group nearby approached.

"You know, Sir, you said you would be back for tea."

He was one of the little squad given us for an escort into Morlancourt. I nodded my head at the recollection.

"Well, Sir, you were," he added, and the admiration shining in his eyes beat what the general had said. That's the British Tommy for you.

A week or so later Corporal Bayley came to me with a copy of the Continental edition of *The Daily Mail* of August 12. Mr. Beach Thomas, war correspondent, had a paragraph as follows:

"The best individual story of a tank comes from north of the Somme. It lost its direction and got to Treux, where an officer asked it to take up something to the front line. It answered 'Yes,' Tanks always do. It did the job and was asked at the front trench to help with some tiresome enemy in front. It said 'Yes' again, but demanded the help of a dozen infantrymen. With this bodyguard it set out, crossed a hostile trench and worked along it, finally accepting the surrender of 7 officers and 200 men."

That symbol of the African death-sign brought good luck, for we came through without a casualty. Without doubt that grinning skull scared off the evil spirits!

Press Censorship in War Time

Part II

BY MAJOR HARRY W. CAYGILL
Infantry

PUBLICITY AND INCOMPETENCE

AS early as the winter of 1917, Wythe Williams, to his satisfaction, evidently had ferreted out sufficient evidence of incompetence on the part of the overseas military authorities to state, in his "An Open Letter to Americans" in *Collier's*, January 12, 1918, that he believed the time had come to detach some of the wreaths which festooned the American forces on their arrival in France.

"I hung a few myself," confessed Williams. "Some of them were necessary at the time, but we overdid it. I now believe that there are some things concerning our military effort that need criticism rather than flowers. . . . We must have the privilege of free comment and criticism of our army. The incompetents must go, and the only way to get rid of them is to let the public know the facts."

Was the only way to get rid of incompetents "to let the public know the facts?" There were officers relieved from command for incompetence—a very considerable number in 1918 from general officers down to lieutenants.

Relief of officers from command, however, was effected without the necessity for bathing them in the bitter light of newspaper publicity. Furthermore, when these crushed and disconsolate souls slowly mounted the transport gangplank to begin the dread journey "back home," the military machine which had determined their fate threw over them a protective mantle by the censorship provision that publicity could not be given to their return to the United States if the contents of the press dispatches would "hurt" them.

It is now a well known fact that the Commander-in-Chief of the American forces in France was himself considered highly incompetent by not a few Allied military and governmental leaders after he had refused repeatedly to permit the incorporation of United States soldiers into French and British units as replacements. In the light of this fact, the reaction of some French and British publicists, and probably a few American correspondents, under a system of complete freedom in criticism of military personnel and policy, would have made interesting reading, to say the least, for the public.

The problem of press freedom in criticism of military personnel in the field opens wide the whole question as to whether there should be any war-time censorship. It also opens the question as to how competent is the civilian newsman to criticize military incompetence.

"Freedom of the news about the army in the field would be equivalent to laying your cards on the table while your opponent did not show his, the points in the game being the lives of men."

"A POLITICAL, A SOCIAL, AND A MORAL CENSORSHIP"

Not only against censorship of matters military did the correspondents wage inky war. Wythe Williams held that the American censorship was not only military, "but political, diplomatic, financial, personal, and even social."

According to Raymond Tompkins, an identical viewpoint was held by Heywood Broun. Tompkins relates in his article, "News From the Front," that Broun used the word "Boche" in a story, which word the censor, Frederick Palmer, blue-pencilled. Broun protested, Palmer retorted that his action was in keeping with the President's statement that the United States was fighting German autocracy, not the German people. Thereupon Broun expostulated: "I begin to see that this is not merely a military censorship, but a political, a social and a moral censorship."

Certain it is that the scope of the regulations promulgated from time to time by the American Expeditionary Forces afforded sufficient evidence to warrant indictment for the imposition of a press censorship which extended considerably beyond the realm of the distinctly military.

One censorship provision read in part:

Any reference to the French people which would injure their susceptibilities or weaken their faith in our coöperation, or show lack of consideration for differences of language and customs must be avoided.

In his dispatch to the New York *Tribune*, dated December 23, 1917, Heywood Broun complained:

One correspondent wrote a story of how the mayor of a little French town turned out at four o'clock in the afternoon in a high hat and evening clothes, supplemented by a red scarf, to welcome newly arrived American troops. The most literal censor we have had sat in the chair when this story was presented. "I can't pass that story," he said. "It ridicules the French. Everybody knows that you shouldn't wear evening clothes at four in the afternoon."

One must agree with Broun that on this occasion the censor was "most literal." There is, however, another side to the picture.

Writing in *The Bellman* on September 21, 1918, James Melvin Lee stated that in cases of conflict between censors

and correspondents the latter had at times thrown stones when not entirely free from guilt themselves.

Lee told of one writer who had worked up a story reflecting on the moral conduct of all the French, an article which, if it had been passed by the censor, would have caused bitter resentment throughout France. Lee expressed the opinion that there were no people more moral than the French peasantry. He contended that in refusing to pass this story the censor "rightly did prevent the impression that every girl in a French village was a courtesan to the A.E.F. soldiers."

Himself an erstwhile war correspondent, Lee argued:

Such petty complaints of correspondents have only thrown a fog which has made the battle all the harder for a greater freedom of the press in war news. Correspondents are allowed to accompany the A.E. Forces to report the war, and not to make sociological investigation of French morals.

Then there was the matter of the use of intoxicants by American soldiers. As early as August 25, 1917, the chief of the censorship section wrote his subordinates as follows:

My attention has been called to the fact that there is considerable adverse comment by papers in the States on dispatches from here which indicate that the French people have shown their cordiality and hospitality by bestowing gifts of wine on our soldiers. As this has occurred to a limited extent only, and will be officially discouraged, and as reference to these isolated cases appears to have given an entirely erroneous impression and unnecessary worry to the people at home, where the French idea of hospitality in this respect is not understood, please censor for future dispatches all notices of this character. With the French law prohibiting the sale of alcoholic drinks to officers and soldiers in uniforms, and our own rigid law on the subject, which will be as rigidly enforced, we should have little trouble in controlling the liquor problem regarding our troops in France, and the people at home should have no worry on that score.

Norman Draper ran afoul of this prohibitory ruling. He writes:

When the First Division went into the line I wrote a long story describing the entry. Among other things I wrote what a fine-looking outfit of troops they were, their fine morale, and so on. Then I added a paragraph intended to inject a little humor into the war, which had to do with a private who apparently had had several too many drinks and was being helped to his place in the line on a machine-gun caisson—and he was cock-eyed! The censor cut out reference to this particular private on the theory, I imagine, that soldiers do not drink!

Newspapers reaching France from the United States gave indication that not only did the doughboys charge gallantly over the top shouting "Remember the Lusitania!" but that in the trenches, training areas, and villages behind the lines they were overly prone to the use of profane and vulgar expletives. Whereupon appeared the following instructions:

Descriptions of details of army life, and particularly incidents which may falsely characterize the whole,

should not be permitted. While cheer and hearty humor ease the strain of war, flippant and vulgar accounts prejudicial to morale, or profane and obscene quotations, should not be permitted.

There were wails from a few correspondents that this restriction eliminated background necessary for their stories. "Lilies in the purity of their motives!"

In his *You Can't Print That*, George Seldes writes:

Twenty-five thousand men, volunteers and conscripts, men out of college and men out of sewers, all going north again, marching to meet death half way, up there where that choking, spluttering noise was the whole world at war—and singing a ridiculous song that only two years ago had been the sentimental rage of a whole nation:

"I didn't raise my boy to be a soldier."

. . . I thought this episode was humor for the Homeric gods. I thought it the grandest thing I could ever write about the spirit of our men. Nothing during the war had so thrilled me.

. . . So the next day I did my best to draw this picture of heroic soldiers going back to the trenches singing ironically "I didn't raise my boy to be a soldier," and laughing as they marched. I thought it grand war-time stuff.

"Say, what the hell is all this?" said the army censor. "What are you trying to put over, Seldes? This is damned pacifist propaganda. . . . Yes, I know it is true, but it doesn't matter. You can't print that."

There was no little truth in Heywood Broun's contention that:

A great deal is heard about expediency in the censor's office. Thought is taken as to just what effect each dispatch will have back home. Due consideration is given to the possible reaction on democrats, pacifists, and prohibitionists.

Despite restrictions on reference to morals, customs, and choice of language, there appeared in American newspapers throughout the war enough stories reflecting upon the conduct of the soldiers to plague continuously the military commanders who hadn't crossed the Atlantic on religious, social, or educational missions.

Correspondents were eminently correct in their surmise that there was moral and social censorship—albeit not wholly effective. Also as evidenced by the incorporation into the censorship code a provision that no information might be given to the public which injured morale "at home, or among our Allies" or embarrassed the United States and her allies in neutral countries, diplomatic and political censorship was definitely intended.

No regulation has been discovered which might indicate the existence of the "financial" censorship mentioned by Wythe Williams. There are those of the opinion, however, that a drastic prohibition of reference to inter-allied military financial transactions, real or imaginary, might have proved exceedingly beneficial, if only to curb circulation of that humorously ridiculous story, which originated in France and spread rapidly throughout the United States (where it is still fervently believed by many) that the thrifty Gaul exacted from his Yankee

visitor a daily rental charge for use of the front line trenches.

Well-nigh all-embracing was the A.E.F. censorship, even as the conflict which raged from 1914 to 1918 was an all-inclusive affair with the total manpower and the complete resources of one group of combatant nations pitted against those of the group which held forth on the other side of no-man's-land.

Cheerfully to others is left the task of determining where, under such war-time circumstances, censorship—dovertailing as it does with publicity, propaganda, and "camouflage"—should begin and where it should end.

THE SINNING CENSORS

Criticism by no means confined itself to the wall erected by censorship to withstand the onslaughts of the "news-hounds." Those within the wall—censorship personnel, and other military individuals who, directly, indirectly, or even remotely had anything to do with control of the sources of news—were the object of many a correspondent's assault.

Wythe Williams, to refer again to his "The Sins of the Censor," stated:

Throughout the line regiments, and in all the services, strict orders have come from the staff not to talk to correspondents. A correspondent visiting the army gets the conviction that the officers' first feeling concerning him is fear. They think they may say something that will "get them in wrong" with the staff. They have fear where they ought to have confidence.

In unintentional rebuttal Raymond Tompkins, in his *News From the Front*, reported that the correspondents were "welcomed, fed, regaled with anecdotes, and loaded down with news wherever they went, from a corps headquarters to an infantry battalion dug-out. There was no army rule against giving them news. But the rules about writing it scarcely more than permitted them to put down the date, the weather, their best regards, and their names."

Norman Draper sides with Raymond Tompkins, writing:

I never found any officer in a position to know what was going on who would not talk to the correspondents. Of course, officers of lower rank were in a position to know what was going on only in their immediate vicinity, and to some of them this "vicinity" was not very large. When you got to such people as intelligence officers, generals of division, and even colonels, you could find out almost anything you wanted. The difficulty was in separating what could be used as news and what could not. If there were ever any orders from the staff that officers of the line regiments should not talk to correspondents, I never heard of such orders, and if there were any such orders, I never saw evidence that anybody who knew anything worth knowing paid any attention to them.

It would appear that in this particular, if in no other, Wythe Williams erred in his criticism.

The censors themselves, most of whom were newspaper men by civil life occupation, came in for a goodly drub-

bing. Raymond Tompkins, in *American Mercury*, June, 1918, dissects these unhappy wielders of the blue pencil in this fashion:

You might have thought that old newspaper men would have let the news take its course, so long as it was truthful and accurate, but you would have been wrong. Just as a civilian in a new uniform becomes the hard-boiledest of soldiers, so many of the old newspaper men dolled up in O.D.'s and Sam Browne belts became perhaps the toughest censors ever known in military history. . . . The correspondents would have taken this treatment more kindly from the soldiers born and bred, but they looked at it, coming from old newspaper men in soldiers' duds, as the work of traitors.

Correspondents lamented that the sinning "old newspaper men dolled up in O.D.'s" went so far as to change the import of their stories. Wythe Williams complained in *Collier's*, January 12, 1918, that he had had the meaning of stories changed, the style changed, and the dispatches so butchered into meaningless and disjointed sentences that he had been compelled frequently to order entire stories suppressed; that one censor obliterated certain sentences "because I think they do not add to the value of the dispatch."

Either these atrocities were committed prior to the issuance in 1917 of regulations governing changes in dispatches by censors, or the censors concerned sinfully had failed to read the instructions which stated:

Under no circumstances shall correspondents be required to write or make any statement contrary to their opinions or inclinations. In the course of censorship, press officers shall not change any dispatch or article except through deletion, and correspondents, unless the occasion be unusual, shall be allowed to see their dispatches and articles after being censored.

On the matter of changes of meaning by censors, Newton C. Parke, war-time correspondent with General Pershing's forces, writes that there were many times when censors "slashed out material which in the minds of the more reasonable of the correspondents and the more experienced could not possibly have given information to the enemy, simply because they were burdened by one of those set rules. There was nothing else they could do."

Parke adds, however, that he does not agree that stories were ever so butchered that their meaning was distorted. "We had with us one or two young men who regarded the war as just a big crime story and couldn't understand what right a censor had to cut their stuff any more than a police captain."

On the same subject, Norman Draper states:

I never had a dispatch so altered as to change the meaning of what I was trying to write. . . . A number of my dispatches in the early days of American participation were cut by censors, and the censors should have cut them. At the time I had not had enough experience with that particular job to know what I should and should not write. This knowledge came quite rapidly, however, and I used to go along for many months without having a word deleted.

In *The Bellman*, September 21, 1918, James Melvin

Lee expressed the opinion that just criticism could be made of the ruling.

Nothing should appear in any part of the published portion of a censored article or other press matter to indicate that words or passages have been cut out or otherwise censored. The interests of the press, as well as those of the country, will be served by reticence in publishing statements reminding the public of the existence of the press censorship.

Correspondents should be permitted to indicate deletions, contended Lee. That would tend to keep self-important "old newspaper men" in their place.

American censors, unlike the British and French press officers, did not forewarn correspondents of events of public interest, declared Reginald W. Kauffman in an article in *The North American Review*, December, 1918.

Judging from a story which appeared in the *New York Herald-Tribune* on January 10, 1932, the late Bozeman Bulger was hardly in accord with Kauffman. Bulger wrote in part:

The amazement of our allies was intensified when General Nolan decided that he could trust the correspondents with advance information of coming military operations. He wisely concluded that correspondents, understanding the plans in advance, would be able to give a more comprehensive report of what had been accomplished to the people back home. That an American writer would betray such a confidence was unthinkable. The idea worked so beautifully on the first attempt that thereafter a staff officer was detailed—frequently General Nolan detailed himself—to call the newspaper men into conference in advance of each big operation and make clear to them what was being attempted.

Correspondents leveled other scornful fingers at the censors. They were inconsistent, vacillating. They differed in their interpretations of censorship regulations. The censors were "detectives," part and parcel of the army's "Secret Service" asserted Reginald Kauffman. They were a bad lot, any way one might look at them.

Censorship being an art rather than a science, inconsistencies were bound to occur, as were differences of interpretation of rules. Wrote General Pershing on this subject in *My Experiences in the World War*:

The rules of censorship were prescribed in considerable detail, but they were not always wisely applied, as no two censors ever construed them alike. In order to be on the safe side, the censor often times eliminated from press dispatches and personal correspondence information that was harmless, but in the main, few errors were made.

Thankless was the task, unhappy the lot, of the censor. On the one hand was the correspondent clamoring for news to meet the demands of his paper. Writes Raymond Tompkins:

Many a managing editor's idea of a most efficient war correspondent was one who told, or tried to tell the censor to go to hell. So unbending a disciple of a free press regarded any compromise with a censor as stultification.

On the other hand were those of the military whose experiences in, or recollections of, the newspaper revels of

the Civil and Spanish-American wars were not such as to promote any great confidence in the trustworthiness or reliability of the press as a whole.

To Mark S. Watson of the *Baltimore Sun*, during the World War executive officer of the censorship section at General Headquarters in France, has been attributed the statement that the war-time censor's task is inherently impossible.

Asked to comment on this theory, Watson wrote:

I think it is true that there has always been conflict between an army in the field and the newspaper publishers at home over the amount of precise information which the army allows to be sent by the newspaper representatives operating in the army area. Obviously the field command is interested primarily, and at times exclusively, in the purely military mission. There is neither the time nor the disposition on the part of the commander to consider the debatable question of whether morale at home is going to be aided by identification of the divisions engaged in a particular action. The correspondents, particularly those who themselves have had no military experience, are likely to be unreasonable in their desire for more complete detail than the military head regards as safe.

"THE TOUCHES OF SWEET HARMONY"

Now "the story must be told" that harmony did not always reign in the ranks of the publicists when the common enemy—the censor—temporarily absented himself. Originally the "accredited" correspondent—he who remained permanently with the army in the field—was given the unusual distinction of strapping himself up in a Sam Browne belt. "Discrimination," protested the visiting writer, who came to France for the purpose of making short trips to the battle area in order to write special newspaper or magazine articles.

This momentous war-time problem finally was adjusted by affording both the "accredited" and the "visiting" newsmen the privilege of wearing, after buying, that coveted article of military adornment—much to the disgust of the common soldiery who at dawn and dusk were wont to proffer well-meant but erroneous salutes which were acknowledged by broad grins on the part of the "blankety-blank pen-pushers."

Many of the accredited correspondents remained continuously in the field with the troops; others, during periods of comparative front-line inactivity, scurried off to "civilization"—invariably Parisian civilization. The lilies who remained in the field strenuously objected to the equality of filing and transmission privileges given the vacationers when the big guns roared, troops advanced, and news was "hot."

The protestants protested in vain. The press officer could see no solution to this weighty question except to require that all accredited writers remain with the troops—and that would have caused even more friction.

Then there was the matter of scoops. Acting in good faith, two correspondents accompanied the first group of American troops upon their entry into the trenches where they composed glowing accounts of the occasion. Because

of objection on the part of the French military commander of the area, the other writers failed to reach the front lines. These objected decidedly to the cabling of the dispatches of the two fortunates and "met in a doorway at Einville and signed a unanimous rainsoaked demand that the two be extracted from the front." The press officer decided with the majority. The two writers who had reached the trenches were extracted from the front, foaming at the mouth. The report of the incident stated that one result was "much irritation and friction." Later there were intentional attempts to obtain scoops which likewise caused "much irritation" in the ranks of the writers.

Frederick Palmer, relating in *Editor and Publisher*, that at press headquarters an expert newspaper man devoted his entire time to compiling information and gathering clues to news for the correspondents, stated:

Naturally each "feature" writer thinks that he should have the results of this officer's work while the press association men think that if the "specials" were true patriots they would go home and leave the field to the press association men. As for the magazine men and bookwriters and artists they can see no reason why the army should ever give out any news.

"The touches of sweet harmony!"

PUBLICITY VERSUS CENSORSHIP

Messrs. Wythe Williams, Reginald Kauffman, and Heywood Broun were the three most virulent critics of the press censorship exercised in the American Expeditionary Forces. They were unanimous in their contention that the only solution for the troubles which beset the war correspondents was the "demilitarization" of the censorship and censorship personnel.

In his article, "The Sins of the Censor," Williams maintained that the military authorities had no proper comprehension of the part public opinion should play in bringing victory; that the American censorship stood "only for the muzzle."

The army and the Government, Williams granted, had tried to make the censorship a success by bringing in civilians with newspaper experience to act as censors, but as such these "old newspaper men" were out of their element, possessing no real power. "They are only a go-between from a staff that does not understand to a press that is not understood."

Create in France a war-publicity bureau, demanded Williams, similar to the Committee on Public Information which functioned in Washington, D. C. The bureau should come from the ranks of the press with full power and be responsible to the President alone. The head of the bureau should be advised by the military authorities and in turn they should take the advice of a man who understood the public psychology rather than the mere mechanics of war. The General Staff should report to the bureau and leave to it the handling of all news, even that contained in the official communique.

Reginald Kauffman offered his solution in the *North American Review* of December, 1918:

Either the correspondent should be militarized, in which case he becomes definitely the apologist of the War Department and the mouthpiece of the Intelligence Section, which is to say the Secret Service; or else he should be restored to his civil rights, in which case he would retain his proper position as the link between their sons and husbands and sweethearts abroad and the American people at home. Either the censors should themselves alone be entrusted with the writing of news and the suppression of all that their masters fear to have made public, every correspondent being dismissed, or else the sole effective reform should be effected.

It is simply that the censorship be composed of educated civilians under a civilian head not answerable to any detective, general, or to any member of the Cabinet, but to Congress.

To Congress? Ten months before, Wythe Williams had recommended that the civilian head of the proposed war-publicity bureau be responsible to the President alone. In the intervening months, however, George Creel's Committee on Public Information, responsible to the President, had been operating on a grand scale in the United States.

For every word of criticism directed against the censorship imposed in France, ten editorials thundered against the alleged iniquities of George Creel's publicity bureau in Washington. Herein might lie the reason for Kauffman's belief that the civilian head of censorship with his "educated civilians" should be responsible, not to the President, but to Congress.

What is the reaction of former war correspondents to the demilitarization of censorship—to the substitution of publicity for censorship?

"War without censorship and propaganda is conceivable only between Utopia and Elysia," holds the author of *Without Censor*, Thomas Johnson.

"Freedom of the news about the army in the field would be equivalent to laying your cards on the table while your opponent did not show his, the points in the game being the lives of men," was the opinion expressed by Frederick Palmer in *Editor and Publisher*.

Writes Newton C. Parke, now cable editor in New York City for the International News Service and during the war a correspondent in France:

Neither do I agree with Williams' proposal for a kind of committee on public information as a substitute for the censors to report to, or to be responsible to, the President alone and not to the commanding general. The evils of that should be perfectly plain to anyone, particularly if we were engaged in a not too popular war and the President was inclined to be a weak fellow, easily influenced by politicians and powerful newspapers. In the last resort the General Staff at Washington and the commanding general in the field should say what was and what was not information of value to the enemy. Something of that kind might work out in a war with a second- or third-class power, not in a war where the existence of the country actually was at stake.

WHAT OF THE FUTURE?

In the event of another national emergency involving military operations on a large scale, wherein might the

American military censorship be improved over that of 1917-18?

Newton C. Parke states that no attention whatsoever was paid to the training of censors in the early days of the American Expeditionary Forces; that not for a moment would General Pershing have considered sending combat troops into action without having them undergo preliminary training with British and French units. There was no disposition, however, to have censors similarly trained by having them spend a few weeks at the British press headquarters.

"The natural result of this," Parke writes, "was that General Headquarters could not depend upon the censors to exercise judgment, for they had none, and was compelled to set down hard and fast rules that might apply in thirty cases and be perfectly ridiculous in the remaining seventy out of a hundred." He points out that a correspondent with the British forces, on the other hand, returned from the front with a story that had been passed on "not according to a set string of regulations but according to the judgment of a trained officer."

From Parke's criticism we may gather, then, that a system of training for censorship personnel would hold some promise for the betterment of military censorship.

Raymond Tompkins writes:

I think that a lot of foolish censorship rules were made, and I think that the army sort of blundered its way along, without a guide in the world, learning what to do about censorship after bitter trial and error. But I also think a few great liberal reporters with their heads full of mush about the God-given rights of a free press to come champing in to report a war as though it were an open meeting of a Democratic National Convention, deserve being booted out with great éclat.

Parke also has a few words to say on the subject of war correspondent personnel. He writes:

The newspapers and press associations could help by picking their men carefully. Of course, previous experience with the army is a great aid, but one does not have to be a great military strategist to be a good war correspondent—it is no job catching on in a few months. What I mean is that more attention should be paid to the character of the men. Not that I would select only prohibitionists and Sunday-school workers, but I would give some thought to see that the quarrelsome, trouble-making type were eliminated. A correspondents' mess is a very small affair, and one or two bad ones can stir up a row that reflects upon the whole corps.

So the newspapers and press associations, it would appear, might contribute a potent mite toward the desired improvement.

What have those of the military to offer?

Colonel Walter C. Sweeney, in his *Military Intelligence—A New Weapon in War*, states:

The news specialist and the military specialist must each have become such by years of study of his particular specialty. The ideal censor would be the one who best combine the qualities of the two. To secure the ideal type is seldom possible. The next best thing then is to find specialists in news and give them a course in

training in methods of gathering intelligence, and to find specialists in military matters and give them some smattering of news values. Having done what is possible to secure a balance in the qualities of the censors, it is then essential before sending them to their censorship duties to impress upon them that they must do their censoring in accordance with certain established principles and not by rules alone.

Certain established principles? Major General Johnson Hagood suggests an interesting censorship principle. General Hagood writes:

My opinion is that censorship in war should be conducted like censorship in peace. No big business gives out its trade secrets, nor gives out information in advance which may be of benefit to its competitors. But there is certainly no restriction upon publicity given to its accomplishments. I feel that the censorship exercised by America during the World War really did more harm to our cause than any good which we derived from it. It killed for all time public interest in America's greatest accomplishment under arms.

Given a corps of trained censors and a corps of correspondents free from those with "heads full of mush about the God-given rights of a free press," one might conceive of a censorship operating successfully with but one guiding principle—with but one rule or regulation:

No military secrets will be given out, nor will any information be published which may be of benefit to the enemy. There will be no restriction on publicity given to the accomplishment of the army.

In censorship matters, however, is it possible to figure on the future on the basis of the past? Frederick Palmer writes: "I should say that no person has a wider experience of practical censorship or holds sounder views on the subject than Mark Watson of the *Baltimore Sun*."

Mark Watson's views follow:

In this changing world, conditions of censorship are changing constantly. The radio, the telephone, the automobile, and a host of chemical marvels have developed in our own lifetime, and as all of these are possible tools of communication we cannot establish regulations identical with the most liberal or the most cautious of regulations which prevailed a generation ago, any more than army supplies are comparable with those of the Civil War. Between 1917 and 1918 there was enormous progress in the direction of flexibility of censorship. This was due partly to our learning more about warfare, partly to the changing military situation, and partly to the improvement in our censorship personnel. . . . Just before the section broke up we devised a model general order based upon our experience in 1917, 1918, and 1919. Believe me, it was an ideal censorship code for 1919—and in 1932 is no doubt completely out of date. I know of no possible way to escape such a situation, for the world, fortunately, is always changing and the change in censorship requirements is as swift and incalculable as the change in military strategy itself.

Frederick Palmer, ace among American war correspondents and first press officer of the American Expeditionary Forces, holds:

There can be no such thing as a perfectly fair censorship; that is, no errorless censorship.

Interbattery Communication by Radio

BY MAJOR MORRIS E. CONABLE, C.A.C.

TABLES of organization do not provide for radio operating personnel except in the Headquarters Detachment or Battery, and then only one radio sergeant and one private; nor do equipment tables provide for radio equipment in the various organizations except one radio set, type SCR 136, for the battalion or regimental headquarters.

Due to the fact that the three firing batteries of the 248th Coast Artillery Battalion are widely separated as to their home stations and closer liaison was desired than could be effected by mail, and also to avoid the expense involved by communication through the use of commercial telegraph or telephone, it was thought feasible to establish an intra-battalion radio net using licensed amateur equipment and operators in the various cities. This is now an accomplished project which is due to the interest, hard work and some personal expense of Captain Fred A. Stocking, Sr., Signal Corps Reserve, who has maintained close contact with the battalion for many years, the sergeant-instructor of the unit, Staff Sergeant Thomas Stafford, and members of the several batteries, headquarters detachment and some non-members who hold amateur licenses and operate their own stations. Now that the system is operating successfully and on a regular schedule Captain Stocking was asked to submit a report on the methods used and the traffic handled. His report follows:

The 248th Coast Artillery Battalion (HD), Washington National Guard, has established a radio communication net for the handling of messages within the battalion for the benefit of the entire organization. This net is composed of amateur operators, who are enlisted men of the various units and other amateur operators who have volunteered their services and equipment.

These stations and operators are regularly licensed amateurs who are authorized by the United States Government (after having passed a satisfactory examination) to carry on communications within the radio frequency bands allocated to amateurs.

The battalion net at the present time consists of the

Bn. Hq., Olympia, Wash. (W7EZO); Battery A, Aberdeen, Wash.; Battery C, Snohomish, Wash.; Amateur Station W7YS, Lacey, Wash.; Station W7ECA, Lacey, Wash., owned and operated by Henry Gammell; Station W7CIA, Olympia, Wash., owned and operated by Gordon Young; Station W7DHV, Olympia, Wash., owned and operated by Graydon Young; Station W7APU, Snohomish, Wash., owned and operated by B. Vanderhyde; Station W7SJ, Aberdeen, Wash., owned and operated by R. Heatly.

The services of the above stations during the 1935 encampment of the battalion at Fort Worden, Wash., were excellent, highly commendable and of great value to the battalion personnel. During this field training period daily schedules were maintained between Fort Worden, Aberdeen, Snohomish, Olympia, and Lacey, Wash. A total of 608 messages were handled and 6,146 words of press news were transmitted, bringing the grand total to 814 messages.

Early in 1935, a station at Olympia was licensed and authorized to Major Edw. C. Dohm, the battalion commander, at which time the plans for the foregoing were formulated. Since then the equipment at the battalion headquarters has been remodeled and enlarged, the majority of the work being done by Staff Sergeant Thomas Stafford, and Private Blaine B. Menth, Radioman, 1st Class. The equipment now includes a Gross CB 25 transmitter which operates both radio-telegraph and radio-telephone, at present operating on a frequency band of 3943 KC and 3550 KC for voice and code, but is adaptable to operate on 20, 40, 75, 80 and 160 meter bands. This equipment is the personal property of Sergeant Stafford. The receiver is a Patterson PR-10 all wave receiver. Communication can be carried on successfully with the East Coast stations, the Hawaiian Islands and Alaska.

This communication net has proved a great convenience to the command as well as to the individuals, and will be of infinite value in the event of mobilization of the unit for either national or local service.



VIRILE, HARDY MEN resent the intervention in their affairs of soft-muscled peddlers of platitudes. So do nations hold in light esteem the advice of governments which lack the material power to make their words stand up.—ANONYMOUS.

Death! Then What?

BY CAPTAIN J. H. DOHERTY
Finance Department

THERE is a saying in the Army that "time, tide and army transports wait for no man, and for darn few women." Be that as it may, Death, frequently symbolized by a cadaverous long-whiskered old gentleman carrying a scythe, misses no one, and is so inconsiderate as to call at inopportune times and frequently when the individual is least prepared for his reception. Death is by no means a pleasant subject to contemplate or talk about. So seldom is it discussed that the members of the deceased's family are usually left without sufficient information to make a prompt and efficient settlement of his estate.

When an officer or enlisted man dies, the widow is usually in a highly emotional state at the very time when all her faculties are needed to initiate action to secure all the rights and benefits to which she is entitled. The information furnished here has been compiled with the hope that it will help to smooth out some of the rough places and furnish a ready reference at a time when it is most needed.

The laws and regulations governing the granting of pensions and other allowances change so frequently that some details of this paper may be out of date by the time it is published. Officers and enlisted men should endeavor to keep up-to-date data where their families will find them in emergency, or arrange with a dependable agency to look after these things.

Each of the 24 subjects briefly discussed here should be carefully read by all those who desire, while still living, to do what they can to lighten the burden thrown upon the widow. It is most important that somewhere each officer and enlisted man should have a complete, up-to-date, file containing his last will and testament, his insurance policies, records of stocks and bonds, deeds to real estate, original marriage and birth certificates, a brief statement of his desires for burial, a copy of his last income tax return, and other important records. In the event that a man or his wife has been married previously, there should be a record of the death or legal divorce of the former spouse. Affirmative proof must be established that widows or other dependents claiming a pension are legitimately entitled to it.

We frequently hear the assertion that the Veterans Administration is hard-hearted and so bound up in red tape that processing claims is slowed down by what appear to be unnecessary and sometimes impertinent calls for additional information regarding the widow's rights; actual experience has shown that these things are necessary in order that the Government's interest may properly be safeguarded. Widows must realize that they are claiming a pension from the Government (the Government is claiming nothing from them) and that they must prove

Undertakers may be expected to secure as large and expensive an order as possible.

to the full satisfaction of the authorities that they are entitled to the compensation. This fact should be kept in mind: a widow may be paid insurance, adjusted compensation, etc., for one or more husbands, but she is restricted in her pension rights to her last husband.

A specimen of a last will and testament is contained in paragraph 23; this may be modified to suit individual circumstances.

With one or two exceptions, names and numbers of forms have not been stated due to the fact that they are frequently changed; however, the basic principle involved is stated in each title. Readers should keep in mind that whenever the words "wife" or "widow" are used the instructions or suggestions apply equally as well to "other dependents."

SECTION II

1. **BURIAL PLOT.** In the event the deceased owned a burial plot in a civilian cemetery, his wife should have knowledge of that fact and information as to its location. A written statement of the deceased should also exist concerning his desires as to where his remains shall rest. In the event that the deceased desired burial in a federal cemetery, such as Arlington, that fact should be known to his widow. This is a question of immediate concern when death occurs and should be definitely settled prior to that time. If the remains are to be interred in Arlington, a telegram should be sent to the Commanding Officer, Washington Quartermaster Depot, War Department, Washington, D. C., stating the number in the funeral party, the date and hour of arrival of the train upon which the remains will reach Washington, and whether interment is to be made immediately or the remains are to be placed in a vault pending further arrangements. There is no expense attached to the services furnished in Washington. Another matter to be considered is that the Government furnishes a headstone for the grave. These stones are of regulation design and size (42"x13"x4") the upper 24 inches being above ground when in place. Should the widow decide to have a memorial more elaborate than that furnished by the Government, the design, if it is to be erected in a federal cemetery, must be approved by the Quartermaster General, and the cost must be paid by her.

2. **DIRECTIONS FOR BURIAL.** Regardless of where the death of military personnel on active duty occurs, it is highly important that The Adjutant General of the Army be notified *immediately*, stating the time and date, and if possible, the cause of death. Army regulations

require that Commanding Officers notify The Adjutant General's Office by *radio, cable or telegraph immediately* upon the death of an officer under his command. This is of importance to the Chief of Finance, The Adjutant General and to the Press Relations Section of the General Staff. If death occurs on an army post, or in an army hospital, there is very little the widow is required to do.

All Quartermasters have contracts with undertakers which provide that the remains of all officers and enlisted men shall be embalmed, furnished a casket, and transported to the local cemetery or to the train. There appears to be no reason why, when such contractors are available, they should not be informed that the family of the deceased wishes the funeral and equipment exactly as required by Government contract with no embellishments and no extra expense. If interment is to be made at a cemetery some distance from the place where the death occurred, Army Regulations provide that the remains shall have an escort; the normal arrangement is for the widow to escort the remains, and as such, transportation at Government expense is authorized. In the event death occurred at a place other than an army post, after notifying The Adjutant General, the widow should get in touch with the nearest Quartermaster who will make the necessary arrangements for burial. However, if death occurs at a place so remote from an army post that it is not practical to secure a contract undertaker, the widow is authorized to arrange for the preparation of the remains for burial, including a suitable casket. The cost to the Government for this service should not exceed \$100.00. When unusual circumstances justify it the Quartermaster General will approve an expenditure of not to exceed \$150.00. In cases of this nature it is advisable for the widow to keep a memorandum of all expenses paid by her in order that she may be reimbursed. It is preferable to have the undertaker submit an itemized bill direct to the Quartermaster General. A more elaborate casket than that furnished by the Government may be ordered but the added cost over and above the contract price must be paid by the widow.

Without any intent to speak disparagingly of a necessary business, it should be realized that undertakers may be expected to secure as large and expensive an order as possible. Relatives are apt to feel that absence of pretentiousness is indicative of a lack of respect. These two tendencies can cause considerable unnecessary expense. Retired officers not on active duty are not entitled to burial at Government expense except that the Veterans Administration will allow \$100.00 for this purpose if it can be affirmatively proved to the satisfaction of the Administration that the deceased was a veteran of a war and did not leave an estate worth more than \$1,000.00. Deceased retired officers are entitled to burial in Government Cemeteries.

3. **SIX MONTHS GRATUITY PAY.** The widow of every army officer or soldier on active duty, whose death is not a result of his own misconduct, is entitled to a gratuity payment equal to six months pay. The word

"pay" means only base, longevity and flying pay; it does not include rental or subsistence allowance. Payment is restricted to a wife or minor child previously designated by the officer or soldier. (A.G.O. form 41). Payment of this gratuity, other than to a wife or a minor child, will be made only when the dependency can be affirmatively established, and where such person has been designated by the deceased as his beneficiary. Practically all finance officers have a supply of blank forms upon which this claim may be made. In the continental United States the form should be submitted to the Finance Officer, U.S. A., Munitions Building, Washington, D. C. If death occurs in an overseas possession, payment may be made by the Department Finance Officer. There is a popular impression that the six months gratuity pay is intended to cover funeral expenses. Such is not the case.

4. **ARREARS OF PAY.** The widow is also entitled to the pay and allowances earned by the officer or soldier from the date of last payment to and including the date of his death. This payment includes base and longevity pay, rental and subsistence allowance, flying pay, etc. A blank form upon which to set forth this claim may be obtained from the local Finance Officer. The actual payment of this voucher may require considerable time as it is not paid by army authorities and must be submitted to the General Accountancy Office, Washington, D. C., for settlement. Before payment is made, it must be ascertained that the officer or soldier is not indebted to the United States or its instrumentalities. The widow may hasten the settlement of this claim by discharging all outstanding financial obligations of her husband to Army agencies such as post exchange, commissary, etc.

5. **ARMY MUTUAL AID ASSOCIATION INSURANCE.** In the event the deceased officer was a member of the Army Mutual Aid the Secretary of the Association immediately telegraphs or cables \$1,500 to the beneficiary. This payment usually is made the *same day* the report of death reaches the War Department. It is here deemed appropriate to state that the Army Mutual Aid Association maintains an organization in Washington, which is able to render great assistance to widows and other dependents in the settlement of claims for pensions, bonus, war risk insurance, other insurance, etc. In the cases that have come to the personal attention of the writer, the widows of officers who carried insurance in the Army Mutual Aid were most appreciative of the courtesy and service rendered by the Association in the settlement of their claims, some even going so far as to state that the service obtained after death was alone worth the premiums paid.

6. **U. S. GOVERNMENT INSURANCE.** The widow should consult some well-informed agency, a lawyer, or the local Red Cross Representative, for advice as to the proper preparation of her application for settlement of U. S. Government insurance. At the time the officer or soldier took out the insurance he designated a beneficiary to whom payment was to be made; or, during

the life of the policy he may have written to the Veterans Administration and had the policy endorsed to change the beneficiary. In either event the designated beneficiary at the time of death is the only person who can collect Government insurance. It is not necessary to prove any degree of dependency in order to secure payment. It frequently happens that young officers take out Government insurance, designating their mother as the beneficiary. Subsequently these officers marry, but neglect to change the designation of beneficiary from the mother to the wife. If death occurs the wife is left stranded and payment must be made to the mother. Keeping the designation of a beneficiary up to date is a detail that should not be overlooked. It is here deemed appropriate to discuss briefly the total disability benefits on Government insurance.

Each U. S. Government life insurance policy contains a proviso covering total permanent disability (permanent as distinguished from temporary). In the event of total permanent disability, the Government waives the payment of further premiums and pays to the insured \$5.75 per month as long as the insured shall live, for each \$1,000.00 of insurance carried. If death occurs before 240 payments have been made, the balance is paid in one lump sum to the beneficiary. For a small additional premium the Government will endorse any policy now in force to include a total disability provision (temporary). This was authorized by Section 311 of the World War Veterans Act of 1924, as amended July 3, 1930. With this proviso in force, any policyholder who suffers any impairment of mind or body, which continually renders it impossible for the disabled person to follow any substantially gainful occupation, will be paid \$5.75 per month for each \$1,000.00 of insurance, commencing with the first day of the fifth month of such disability, and continuing during the time of total disability. Also, premiums on the policy are waived and the face value of the insurance is not reduced or impaired in any manner as a result of the total disability.

The total disability payments (temporary) may be concurrent with, or independent of, the total permanent disability provisions already contained in the policy. The cost of this additional protection for total disability is comparatively small. So expensive has this turned out to be for old-line insurance companies that practically all have ceased writing this form of insurance. Retirement from the Army is not considered sufficient evidence of disability, and many officers who have carried disability insurance with the Veterans Administration and commercial companies have been much surprised to learn that abnormal blood pressure, heart disease, kidney trouble, certain major injuries to eyes, limb and other parts of the body are not considered permanently and totally disabling by either the Veterans Administration or commercial insurance companies. Those interested in securing a total disability provision attached as a rider to their Government insurance policies should write the Director of Insurance, Veterans Administration, Washington, D. C.

7. ADJUSTED SERVICE CERTIFICATE (BONUS). If the officer had active service during the World War, provided such service was not in the regular army, and the officer or soldier held no rank higher than that of captain, then he is entitled to a stated amount, based upon the length and character of his service, for what is known as the World War Bonus, more properly designated as Adjusted Service Compensation. The Adjusted Service certificate should be found among the effects of the deceased officer or soldier, and the widow is entitled to the proceeds of the face value of the certificate. The certificate itself does not contain the name of the beneficiary, but there should be on file in the Veterans Administration a statement designating a beneficiary. When changes are made acknowledgment of receipt should be requested. It is possible for the officer or soldier to obtain loans up to 50% of the face value of the certificate, and the widow or other dependent should attempt to determine whether or not such a loan has been negotiated. In any event the present value of the certificate will be paid to the widow, or other designated beneficiary, by the Veterans Administration.

8. MONEY IN BANK. Not only are banks required to conform to Federal Statutes, but also to laws and regulations of the state in which they are doing business; therefore it happens sometimes that an officer or soldier who carries his account in his own name temporarily deprives his wife of the use of this money at a time when it is most urgently needed. Experience has demonstrated that where an officer or enlisted man is married, the best plan is to have a joint bank account, for example, —"John A. and/or Mary B. Jones, either or the survivor." When the account is carried in this manner, the widow can draw against any balance remaining in the bank; otherwise it is required that the widow institute administration proceedings in the courts or probate the husband's will before she can have access to the bank balance.

Officers frequently find it convenient or necessary to negotiate loans from the bank, giving their personal note. In cases of this nature the widow should make every effort to redeem any outstanding notes in order that her credit standing in the community may not be impaired. In passing, comment is due on the uneconomical and foolish practice some officers have of financing the purchase of an automobile and negotiating personal loans through financing companies or loan societies who charge for this service from 7% to 14%, when they can borrow from a bank at 6%. Do not forget that when you obtain a \$100.00 loan to be repaid in ten monthly installments of \$10.00 each you usually get \$94.00. When the last month rolls around, you actually have \$4.00 of the borrowed money, while you are paying 6% on \$100.00. Figure that interest rate for yourself. The only way a bank can make money is to loan money, and an army officer's signature is gilt edge. Get acquainted with the officials of one bank and keep an open account there, regardless of where you are stationed. If your credit standing is estab-

lished, in a pinch you can always mail in a note where you are known. In case of a personal note executed by another officer the widow can either call on the drawer for the face value of the note or send it to her bank for collection.

9. PERSONAL PROPERTY; STOCKS AND BONDS. While he is alive, an officer or enlisted man can not be too careful in listing all personal property owned by him, especially stocks and bonds. In the event the stock certificates or the bonds have been placed in a safe deposit vault, a record of their location should be made and filed with his personal papers. Frequently for a small charge a bank will retain stock certificates in their files and issue a receipt therefor; such receipts should be placed among other valuable papers.

10. COMMERCIAL INSURANCE POLICIES. A record should be maintained of all commercial insurance carried, showing the face value, the name of the issuing company, policy number, the name of the beneficiary, the amount of premiums and how they are paid, and the form of the policy, i.e., whether it is a straight life, limited payment life, endowment or annuity.

Commercial insurance companies require proof of death; this is usually accomplished by having two persons who knew the deceased during life, view the remains before the casket is finally closed. If necessary they are then in a position to make an affidavit to the fact that the deceased is actually the person who was insured. The companies require this to avoid the payment of fraudulent claims.

When death occurs, the sensible thing for the widow to do, is to get in touch with the local agent of the insurance company who will advise her regarding the procedure to effect settlement on the policies. Some insurance companies will agree to mail or wire one-half of the amount of the insurance to the widow upon receipt of official notification of death from The Adjutant General.

11. DEED TO HOUSE OR OTHER REAL ESTATE OWNED BY DECEASED. In the event the deceased owned a house or other real estate, it will be necessary for the widow to go to court, to be appointed executrix of the estate. The law differs materially in the several states, and it is advisable to consult a lawyer or a banker regarding the correct procedure to obtain letters testamentary. It is highly important that the deed to the house, together with tax receipts, insurance policies, etc., be filed at some place known to the wife.

12. AUTOMOBILE—TITLE, INSURANCE AND UNPAID NOTES. It is important that the title to the family automobile be filed with the other documents. It frequently happens that payments are due on an automobile that is comparatively new; in cases of this nature, the title to the car is held either by the bank carrying the notes on the car, or by a financing company. If the deceased left an estate, State Motor Vehicle Commissioners usually will transfer the title to the widow without recourse to law. A record of the insurance carried

on the car should also be available. It is deemed appropriate to state that insurance carried in the United Services Automobile Association of Fort Sam Houston, Texas, at the time of death is automatically continued until such time as the current policy expires, and the widow may now reinsure in the Association. The United Services Automobile Association appears to be a worthy and sound organization directed by personnel of the military, naval and allied services. It is actually effecting a saving on premiums for automobile insurance.

13. ARMY COOPERATIVE FIRE ASSOCIATION. FIRE INSURANCE ON HOUSEHOLD GOODS. A large number of officers carry fire insurance in the Army Cooperative Fire Association of Ft. Leavenworth, Kansas. This is a cooperative association, and each member is required to build up a reserve of \$6.00 for each \$400.00 of insurance carried. After the reserve is built up, the annual assessments for insurance amounts only to a proportionate share of the annual losses plus a small charge for overhead expense. In the event of death, the widow cannot carry this insurance but the policy of the member is protected for a period of two months after his death and the widow is then entitled to a refund of the equity that her husband had in the Association. Six months after the member's death this equity will be paid to the widow. The following is an extract from a letter received from the Army Cooperative Fire Association, which may prove enlightening:

There has never been any case of requiring proof in making settlement with a widow. Unless we can find some account of the death of a member reported in the service papers or we hear direct from the widow or some friend, it is hard for us to keep track, and we have some accounts outstanding for several years, as we do not know to whom or where to send the check.

In addition to being one of the least expensive forms of fire insurance that an officer can carry on his household goods, policies in this Association are also the most convenient as claims are settled by a board of officers appointed at the post where the fire occurred. This is a form of insurance that each married officer should carry.

14. U. S. PENSION. Widows or dependent children and dependent parents of officers and enlisted men who die from service causes—proved to the satisfaction of the Veterans Administration—are entitled to pension. The amount of the pension depends upon whether or not the death is peace time or war time service connected; also whether the deceased served in the military or naval forces during the Spanish War or World War. On March 19, 1935, President Roosevelt issued four executive orders establishing the following pension rates for peace time service connected death, regardless of rank:

Widow under 50 years of age	\$22.00
Widow 50 years to 65 years of age	26.00
Widow over 65 years of age	30.00
Widow with one child, \$7.00 additional for such child up to 10 years of age, increased to \$11.00 from age 10 (with \$6.00 for each additional	

child up to 10 years of age, increased to \$9.00 from age 10). Pensions to continue until the child reaches the age of 18 years or, if unmarried and attending school, until age 21.

Dependent Parent (only one surviving) 15.00
Dependent Parents (two), each 11.00

A more nearly complete statement of the papers necessary to substantiate a pension claim is contained in War Department Bulletin No. 7, 1934. It should be understood that unless the officer or soldier was a veteran of the war with Spain, the Philippine Insurrection, the Boxer Rebellion, or earlier wars, the pension is not paid when death occurs from other than service causes. In the case of an officer or soldier accidentally killed while on leave of absence, or death occurs as a result of some cause originating after departure from his station, the widow or dependents are not entitled to a pension. Neither is a pension paid in the case of an officer or soldier who commits suicide while on active duty, unless it can be proved that there existed some mental disease contracted in or aggravated by the performance of military duty. The widow should investigate the pension provision and, if entitled thereto, file a claim as soon after death as possible, as the pension starts only from the date the application is received and not from the date of death. Registered mail is advised. Widows or other dependents must reconcile themselves to a delay, as much research has to be made before the application for a pension can be approved. Payment is made by the Veterans' Administration.

15. **COMPENSATION.** Compensation is in the nature of a pension and is payable only to the widow or other dependent of a World War veteran who was entitled to receive compensation, pension or retirement pay for 30% or more disability, directly incurred in, or aggravated by service in the World War, and who died from a disease or disability not service connected and not the result of his own misconduct. Very few, if any, army personnel are entitled to this compensation, as their rights are determined under other laws. However, it is advisable to consult an informed agency concerning this matter.

16. **ORIGINAL MARRIAGE CERTIFICATE.** The widow is faced with the necessity of processing various claims. At least five of these claims require certified copies of the marriage certificate; these copies should be prepared before death, or at least the original should be available so that the widow can easily obtain certified copies. In the event either spouse has been married previously, original or certified copies of death certificates or divorce decrees are required and should be available.

17. **ORIGINAL BIRTH CERTIFICATES.** All the remarks pertaining to marriage certificates apply equally as well to birth certificates of children, for the reason that pension allowances fluctuate according to the number and age of minor dependent children of the deceased. Birth certificates are required and must be available. For establishing dependency of step-children or adopted chil-

dren, procure legal advice; this question is too involved to cover in this short article.

18. **AFFIDAVITS FROM WIDOWS.** After death occurs, and in order to process a claim for pension, affidavits are required by the Veterans Administration; first, from the widow, giving a physical description of the deceased, including his height, weight, complexion, color of hair and eyes, age and such other items as occupation at the date of entering service, and the place of his birth; second, two affidavits for the deceased officer or soldier and two for the applicant widow from two disinterested parties—not relatives—stating that the widow and the deceased had lived together continuously as man and wife since marriage. This may seem absurd but the affidavits are required.

19. **INCOME TAX.** It is very important that there be available to the widow a copy of the last income tax return filed by the deceased. Practically all revenue offices mail out income tax blanks in duplicate, and the best plan is to retain a file of duplicates readily accessible to the widow after death occurs. All officers while on foreign service are required to file income tax returns with the Collector of Internal Revenue, Baltimore, Md. Some officers forward returns to that office, regardless of where they are stationed, and find that it is a good plan to follow, as a continuous record is maintained in one office.

20. **CERTIFICATES OF DEATH.** Regardless of where death occurs, that is, whether on an army post or elsewhere, the law requires that a report of the death be filed with the Bureau of Vital Statistics. The widow should obtain from this Bureau at least five copies of the death certificate; these are required to support various claims for moneys due her. Securing these certificates may cause a delay of a few days, but it is a matter that should be attended to as soon as possible. Experience has shown that the undertaker is in the best position to secure the original and four copies of the death certificate.

21. **HOUSEHOLD GOODS.** The widow must determine where she intends to establish her future home. Army Regulations provide that the household effects of deceased officers and soldiers shall be returned to their home at Government expense. Procedure is outlined in AR 30-960, and the widow should consult the nearest Quartermaster for advice and instruction. It is important that an inventory of household goods be made; in fact an inventory of household goods is a desirable thing to have at all times. Where damage to household goods has occurred as a result of fire, water or the hazards of transportation, the important things to know are: (1) what you have, (2) the original cost, and (3) present value. This information is necessary to establish a claim for reimbursement of damage sustained.

22. **TRANSPORTATION OF DEPENDENTS TO HOME.** If death occurs at a place remote from the designated home of the widow, curiously enough there is no provision for furnishing transportation at public

expense. In such a case immediate payment of insurance is most helpful.

23. **LAST WILL AND TESTAMENT.** There are a few who have not made a will. This is such an important, albeit simple matter that it should be attended to by each officer and soldier. A sample copy of a will, which may be modified to suit conditions, follows:

IN THE NAME OF GOD, AMEN.

I, _____, being of sound and disposing mind, do hereby make, publish and declare this to be my last will and testament, hereby revoking all other wills by me hitherto made.

FIRST: I give, devise and bequeath all of my estate, real, personal, and mixed, in fee simple and absolutely, to my beloved wife, _____, and I hereby appoint her my executrix, without bond, with full power to sell, mortgage, lease or in any other manner dispose of the whole or any part of my said estate.

SECOND: In the event of the death of my said wife, _____, prior to the death of myself, I give, devise and bequeath all of my estate, real, personal, and mixed, in fee simple and absolutely to my beloved daughter, _____, and I hereby appoint _____ of the City of _____, as my executor, without bond, with full power to sell, mortgage, lease, or in any other manner dispose of the whole or any part of my estate.

IN WITNESS WHEREOF I have hereunto set my hand this _____ day of _____, 19____.

(SEAL)

Subscribed, sealed, published and declared by the above named testator, as and for his last will in the presence of each of us, who, at his request, in his presence, and in the presence of each other, at the same time, have hereto subscribed our names as witnesses this _____ day of _____, 19____, at _____.

NOTES:

- (1) In some States the Law requires three witnesses.
- (2) A brief summary concerning the administration of deceased persons' estates can be found on page 223, *World Almanac*, 1935.
- (3) A brief note concerning Wills may be found on page 209, *World Almanac*, 1935.

24. **ARMY RELIEF SOCIETY.** Practically all officers and their wives, as well as all enlisted men, are aware of the fact that they are frequently called upon to make donations, stage entertainments, fairs, etc., to raise funds for the Army Relief Society. Very few persons in the military service are aware of the benefits derived by army personnel from the efforts of this Society. It is readily apparent that the recipient does not advertise the fact that she is receiving help from the Army Relief, but the annual report of that Society indicates that it is doing excellent work in relieving distress of the widows and

other dependents of both officers and enlisted men. At the time of death, should circumstances be such that a widow finds herself without funds and no immediate prospect of receiving any, she should consult the Chaplain or local Secretary of the Army Relief Chapter. In deserving cases loans or outright grants are made. The degree of distress is, of course, the determining factor and must be established affirmatively. Too much credit cannot be given to the officers of the Army Relief Society for their efforts. They serve without compensation, and efficiently distribute the funds entrusted to their care, striving always to accomplish the greatest amount of good for the largest number.

SECTION III

It is quite possible that several other questions may occur to individual officers and enlisted men. Experience has shown that in practically all cases the subjects previously mentioned are of vital concern, and the question now arises—what to do about it? The most practical and sensible thing to do, is to procure a container in which to keep all vital records. This may be of metal, canvas, or a large manila envelope. It should be labelled "Important Papers and Vital Records of _____," and should be kept in a safe place known to both husband and wife. It is suggested that the following or a similar form be utilized. Blank spaces to be filled in with the necessary information:

1. **BURIAL PLOT.** I do (do not) personally own a burial lot.

The lot is located in _____.

2. In the event of my death, it is my desire that my remains rest in _____.

3. **SIX MONTHS GRATUITY PAY.** The dependent designated to receive my six months gratuity pay is _____.

NOTE: If birth, marriage, death or divorce has occurred since the last A.G.O. form 41, was mailed to The Adjutant General's Office, an amendment should be sent in immediately.

4. **ARREARS OF PAY.** See Section IV. Nothing can be done about this prior to death.

5. **ARMY MUTUAL AID.** I am (am not) a member of the Army Mutual Aid Association, and carry insurance in the amount of \$_____. The beneficiary is _____. The policy number is _____. The Association pays benefits immediately. No formal claim required.

6. **U. S. GOVERNMENT INSURANCE.** I have (have not) U. S. Government Insurance in the form of a straight life, endowment, or _____, policy in the amount of \$_____. The beneficiary of the policy is _____. Policy Number _____.

NOTE: If birth, marriage, death or divorce has occurred, the beneficiary should be changed and a change is not legally recognized unless it is endorsed on the policy.

7. **ADJUSTED SERVICE CERTIFICATE.** I have (have not) an Adjusted Service Certificate with a face

value of \$----- I have (have not) secured a loan against this certificate in the amount of \$----- The beneficiary of my Adjusted Service Certificate is -----

NOTE: If birth, marriage, death or divorce has occurred, advise the Veterans Administration by letter. Changes are not endorsed on the Adjusted Service Certificate.

8. MONEY IN BANK. I have savings accounts in the following banks: -----

I have checking accounts in the following banks -----

I have (have not) a safe deposit box located in -----

9. PERSONAL PROPERTY. The following is a list of stocks and bonds owned by me, showing name of company, serial number, face value and interest rate: -----

The stock certificates or bonds are (herewith or) in custody of -----

Bank -----

10. COMMERCIAL INSURANCE POLICIES. The following is a list of Commercial Insurance carried, showing name of company, nature of policy, face value, number, and the policies are located (herewith) in the custody of -----

Bank -----

11. REAL ESTATE. The following is a list of real estate owned by me, showing the general nature, location and value: -----

Deeds to the property are (herewith) (or filed with) -----

Tax receipts, water rent receipts, etc., are (herewith) (or filed in) -----

Insurance on the property is carried in -----
Insurance Company of -----

12. AUTOMOBILE. I am (am not) the owner of an automobile insured in United Services Automobile Association or -----

13. FIRE INSURANCE. I am (am not) a member of the Army Coöperative Fire Association in the \$----- class. I have fire insurance on household effects in the following insurance companies: -----

14. U. S. PENSION. See Section IV.

15. COMPENSATION. See Section IV.

16. MARRIAGE CERTIFICATES. My original

marriage certificate is (herewith) or filed with -----

Original copies of death certificate or divorce decree from my former wife; or from the former spouse of my present wife, are (herewith) located -----

17. BIRTH CERTIFICATES. The original birth certificates of my children are (herewith) (or filed with) -----

18. AFFIDAVIT FROM WIDOW. See Section IV. Nothing can be done about this prior to death,

19. INCOME TAX. A copy of my income tax returns for the past several years is (herewith) (or filed with) -----

20. DEATH CERTIFICATES. See Section IV.

21. HOUSEHOLD GOODS. Inventory of my household goods, showing original cost and date of purchase is (herewith) (or filed with) -----

22. TRANSPORTATION TO HOME. See Section IV.

23. LAST WILL. My last will and testament is in the custody of -----; is filed in -----

24. ARMY RELIEF. I have (have not) been a regular and consistent subscriber to the Army Relief Society, and it is (is not) my desire that my wife appeal to the Society for help in case of extreme distress.

SECTION IV

Let us assume that death has occurred and that the deceased has complied with the provisions of Section III, and let us further assume that the widow is now faced with disposing of the remains and processing various claims for her rights and privileges under the law. The following plan has proved to be generally satisfactory. It should be prepared and labelled "Instructions for the use of my wife or other dependent in the event of my death.":

1. As soon after my death as possible, notify The Adjutant General of the Army by telegraph. If death occurs on an army post this is automatically and immediately attended to by the Post Commander.

2. Consult the local Quartermaster, if on an army post, as to arrangements for burial (see paragraphs 1 and 2, Section III). In the event death occurs other than on an army post, wire the nearest Quartermaster for instructions or engage the services of a local undertaker to make all necessary arrangements in connection with the disposition of the remains. Instruct the undertaker to send his statement for services to the Quartermaster General; first inspecting the bill to see that it is correct and not in excess of the agreed amount.

3. Arrange to have two persons view my remains before the casket is closed, for purposes of identification.

4. Assemble all my private papers, go over them and assure yourself that you have an original and four copies of birth, marriage and death certificates (also divorce decrees in appropriate cases). If you have not sufficient copies, write to the Bureau of Vital Statistics of the state in which birth, marriage, death or divorce occurred for official copies. Have the undertaker make arrangements to procure for you an original and four copies of the death certificate. Consult the nearest Finance Officer, the Chaplain, and the Local Red Cross representative for advice and assistance in obtaining the necessary forms to be used in filing claims. It is important that your claim for pension be initiated as soon as possible and forwarded to the Veterans Administration by registered mail, return receipt requested. Families of members of the Army Mutual Aid Association can save themselves much trouble by asking the Secretary of the Association to attend to the foregoing.

5. Prior to leaving your last home be sure to fill in the forms required by the Veterans Administration, establishing the fact that you were my lawful wife and have lived with me a stated period of years. This must be sworn to by two disinterested persons, not relatives, who have personal knowledge of the fact. (See paragraph 18, Section III).

6. Get in touch with a banker, and if necessary arrange for a loan pending the time insurance policies are paid.

7. See that all proper claims have been instituted. If necessary consult the Secretary Army Mutual Aid Association if I was a member; if not, then see the local Finance Officer, Chaplain or Red Cross Representative and make sure that claims are started for the following:

- a. Six months gratuity pay.
- b. Arrears of pay.
- c. Government Insurance.
- d. Adjusted Service Certificate.
- e. Commercial Insurance Policies.
- f. U. S. Pension.
- g. Compensation.

(Army Mutual Aid Association is not listed as it pays insurance at once. No claim need be filed).

8. You must now decide where you will make your future home and advise either the Post Quartermaster or the nearest Corps Area Quartermaster where your household goods are to be shipped. This is done at Government expense and the furniture will be packed and shipped to storage or to your new home.

9. If the deceased left a comparatively small estate consisting of only personal property, money in bank (in joint account) and an automobile, it is usually not necessary to have the will probated. However, if the estate is comparatively large and contains real property, stocks, bonds, etc., recorded in the name of the deceased, the will should be probated. It is advisable to consult a banker or lawyer for proper procedure in case of this character.

10. When leaving the post, transportation to the new home must be at your own expense.

11. The one golden rule to follow in all transactions is to retain original copies of all papers. You can always furnish duplicates; these are usually acceptable provided they are properly attested by a Notary Public or other official designated to administer oaths. Do not part with original papers unless required to do so.

CONCLUSION

Finally remember that death is inevitable; the only question is—when? We are all born into this world without our knowledge or consent. We pass through it, taking our share of its joys and its sorrows, and finally are projected into eternity, usually without our consent and contrary to our wishes. Sometimes we wonder if one normal lifetime is long enough. A majority of the birds and beasts have an average useful life of seven times their age at maturity. Not so man. In our journey through this vale of tears, whether primitive savage or highly cultured, we all have four things in common: (1) Self-preservation (food, raiment and shelter). (2) Perpetuation of our kind (sex urge.) (3) Immortality (fame while living; a record of our life after death.) (4) Music and the dance (self-expression and personal adornment.) One thing is obvious—PRIDE; one thing is essential—A SENSE OF HUMOR; one thing is constant—CHANGE; and one thing is certain—DEATH!—Then What?



HERE IS THE BREAK in human nature that brings prophets to despair. They give men principles by which to live and men transform them into shibboleths instead of rules of action. Men cry aloud in praise of freedom, and murder those who do not join the cry.—ANONYMOUS.

Secret Causes of German Successes on the Eastern Front

By A. M. NIKOLAIEFF

IT was commonly believed during the World War, and even now the opinion prevails, that the main causes of the military successes of the Germans on the Eastern front lay as much in the superiority of their artillery and aircraft, and in the well developed system of their strategic railways, as in the clever strategy of the German military leaders. However, in the opinion of some Russian students of the War, these causes taken alone did not offer an adequate explanation of those episodes of the struggle in the East in which the relative strength of the opposing forces was approximately equal and the strategic skill of the Teutonic leaders was not particularly brilliant though the results obtained by the Germans were so. Some of the episodes were: the extraordinary German victory at Tannenberg, the forestalling by the Germans of the Russian offensive after the defeat of the Austro-Hungarian army in the battle of Galicia, and the escape of the German army corps surrounded by the Russians at Lodz. The fortunes of war, usually so changeable, here constantly favored one side, and this suggested that there must have been another cause to explain in a more satisfactory way the remarkable successes of the Germans, and the reverses and half-successes of the Russians. What was that cause? For some time it remained a secret, and then the curtain began to rise.

Light was thrown on the secret for the first time when the German military leaders published their memoirs and accounts of the war events on the Russian front. In 1919 General Ludendorff, describing in his *Own Story* the situation before the battle of Tannenberg, made the following significant statement: "On the journey from Marienburg (the Headquarters of the German army in East Prussia) to Tannenberg an intercepted enemy wireless message was sent us (that is, to Hindenburg and Ludendorff) which gave a clear idea of the opponents' dispositions for the next few days."

Next came the admission of Fieldmarshal Hindenburg. In his reminiscences (*Out of My Life*) published in 1920, he said, speaking of the campaign in Poland: "By tapping the enemy's wireless we were not only able to learn what the situation was, but also the intentions of the enemy." Finally General Hoffmann, with whose work "all the important military events on the German Eastern front are closely bound," supplied detailed information on the question of the Russian wireless messages before the battle of Tannenberg. In his account of that battle (*Tannenberg wie es wirklich war*), published in 1926, he disclosed what those messages were. One, sent from the army of Rennenkampf, made it clear that that army was not

The sad experience of the Russians fully reveals the extreme disadvantage at which an army in the field may be placed if it freely uses the wireless telegraph.

marching in a southwesterly direction toward the army of Samsonoff, as the Germans had feared, but was continuing its advance westward, toward Königsberg; it could not, therefore, arrive in time to the assistance of Samsonoff's army, against which the Germans were planning an attack. The second message was sent from the army of Samsonoff. This message showed that Samsonoff, having mistaken the retreat of one German army corps (the 20th) for the withdrawal of all the German forces facing his army, had given orders to his own army corps to pursue the retreating Germans in a northerly direction (from the line Ortelsburg-Soldau toward the line Allenstein-Osterode), and by that pursuit had exposed his left flank to a German attack. According to Hoffmann, neither of these Russian messages was sent in cipher. Their importance to the Germans cannot be over-emphasized. The situation was similar to that of a bridge game in which one team is not only holding its cards face up, but is even informing its opponents in advance of what cards it is going to play.

How could it happen that wireless messages of vital importance were sent unciphered? In his study of the first battles in East Prussia in 1914, General Golovine, one of the Russian army leaders in the War and a writer of note, sees the cause of that fact in the want of organization and the disorder which characterized the work of the headquarters of the Russian armies in the beginning of the campaign.¹ According to another Russian author, General Daniloff, who was Director of Military Operations at the Russian General Headquarters in the first year of the War, the sending of unciphered radio messages by various Russian headquarters was a result of their lack of familiarity with the new means of liaison. He writes: "To the various headquarters of our army, the use of the wireless in the field was something completely new."² Whatever may have been the real cause of the Russian

¹N. Golovine. *Iz istorii kampanii 1914 g. na russkom fronte. Nachalo voyny i operatsii v Vostochnoi Prussii.* (The history of the campaign of 1914 on the Russian front. The beginning of the War and the operations in East Prussia.) Prague, 1926, p. 220.

²Y. Daniloff *Rossiia v mirovoi voine* (Russia in the World War.) Berlin, 1924, p. 153.

blunder, whether a lack of organization or of familiarity with the wireless, it was more because of their error than because of the strategic skill of the Germans that the battle of Tannenberg turned out to be such a disaster for the Russians.

Following the Russian reverses in East Prussia, measures were taken by the Russian High Command to keep secret the dispositions and movements of troops. In the beginning of the War wireless messages were often sent with a part of the text in cipher and a part unciphered. Soon it was realized that the deciphering of such messages was comparatively easy for the enemy, and the practice of sending messages in this form was therefore discontinued. Besides this, the cipher used by the army in the field was changed from time to time. The Russian military leaders believed in the efficiency of these measures and were under the impression throughout the War that the contents of their wireless messages remained unknown to the opposite side. In the period which followed the war, some suspicion as to the secrecy of the Russian radio messages was expressed in the Russian military press abroad, but for a long time there was nothing to prove that those suspicions were justified. Now, however, after all these years, a new light has been thrown on this puzzling question, and the secret cause of the military successes of the Teutonic armies on the Eastern front has been revealed.

These striking revelations are made by General Max Ronge, Chief of the Intelligence Service at the Austro-Hungarian General Headquarters during the World War, in his imposing book, *Kriegs und Industrie Spionage* (Military and Industrial Espionage). Here we learn that on September 19, 1914, an intercepted Russian wireless message was deciphered by the Austrian intelligence service for the first time; and we are told that from this time until the end of the War the messages sent in cipher by the Russian radio stations in the field were regularly intercepted by the Austrian stations, and successfully deciphered by the experts of the Austrian intelligence service. The contents of these messages were known to the Austrian and German High Commands within a few hours after their original dispatch. Thus the dispositions and movements of the Russian troops, and therefore the Russian strategic plans, were not a secret for those Commands. It is quite obvious that this detailed and reliable information made it easy for the German and Austrian strategists not only to take counter measures to prevent the execution of the Russian plans, but to launch attacks on the weakest parts of the Russian front as well.

The combatant who knows his enemy's plans has, of course, an extraordinary advantage, and in the whole of military history there is perhaps no better illustration of this advantage than that offered by the checking of the Russian offensive in the initial period of the War, after the defeat by the Russians of the Austro-Hungarian army in the battle of Galicia.

The strategic situation after the battle of Galicia, fought from August 24th to September 12, 1914, was as follows:

The remnants of the defeated Austro-Hungarian army had retreated from Russian Poland and East Galicia toward Cracow, and had gathered in the western corner of Galicia behind the Visloka river. The Austrian losses were so heavy* that for some time the Austrian armies were not even able to protect their own and the adjacent German territory from a possible further invasion; the Germans therefore had to move four of their army corps from East Prussia to Silesia in order to bar the roads, should the Russians attempt to invade this province and to dominate its rich resources of coal and iron.

A difficult task now confronted the Austro-Hungarian commander in chief. He had to solve a problem of vital importance: what would the victorious Russian Army undertake next? The further advance of that army might be undertaken in any one of three directions: first, the Russians might invade the plain of Hungary; second, they might continue their drive toward Cracow, and, finally, the Russian armies might concentrate on a new line, for instance, behind the middle Vistula (as they actually did), with the object of starting an offensive in the direction of Silesia (toward Breslau). However, the problem of finding out the further movements of the Russians proved to be for the Austrian High Command an easy one. The solution of that problem was obtained by deciphering the intercepted wireless messages sent by the Russian army leaders.

The first information was received by the Austrian High Command from three messages, of which two had been sent by the 9th Russian army on September 25th and 28th and one by the commander of the Russian cavalry corps on September 25th. The 9th army formed the right flank of the Russian front; it had been pressing upon the heels of the retreating Austrians in Galicia, and by September 25th had crossed the Visloka river. Now, according to the first radio message, all its army corps, "in view of the new maneuver decided upon" by the Russian High Command, were to fall back on the next day (September 26th), leaving on the Visloka river only vanguards. The second message disclosed that the 9th army was to assemble in a new area, behind the Vistula to the north of the mouth of the San river. Finally, the message of the commander of the Russian cavalry corps presented a clear picture of the whole situation (as the Russians saw it) in the wide region to the west of the Vistula; and besides this, it contained information with regard to the movements planned by the Russian cavalry with a view to preventing the enemy cavalry from reconnoitering the Russian front. The subsequent Russian radio messages, intercepted and deciphered up to the 5th of October, disclosed that not only one (the 9th) but two more Russian armies (the 4th and the 5th) were being withdrawn from

*From a remark in General Ludendorff's memoirs one may judge the extent to which the strength of the Austrian armies had been reduced by their heavy losses: he expresses great surprise at the fact that four Austrian armies were crowded into an area so narrow as the corner of Galicia behind the Visloka river, between the Vistula and the Carpathians.

Galicia to take up a new front, behind the middle Vistula, the latter two armies to occupy a line to the north of the 9th Army. Furthermore, it was learned that two Russian armies of the Northern front were being moved southward toward Novogeorgievsk and Warsaw to form the right flank of the new Russian front.

No information about the enemy, more complete and accurate than that contained in these intercepted messages, was ever received by an army engaged in military operations. The Austrian and German High Commands now knew in detail just what forces and what movements they had to deal with, and of even greater importance was the fact that the information about the enemy's movements and intentions had reached these High Commands at a time when the Russians were just starting to carry out their new plan. This plan called for a huge shifting and a complicated regrouping of five Russian armies, and at least three weeks would be required for these operations. That is, the Russian armies would not be ready to take the offensive from the new front until about October 20th; in the meantime the advance units of the Austrian and German forces were only one day's march away from the middle Vistula (at Opatov and opposite Sandomir). With the obvious purpose of taking advantage of the precarious situation in which the Russian armies stood during the slow process of their regrouping, the Germans and Austrians pushed on toward the Vistula; on October 9th-12th they attacked the Russian army corps (of the 4th and 2nd armies) which had crossed the river in order to enable the 5th Russian army to take up its position to the south of Warsaw.⁴ Although those army corps were pushed back by the Germans and had to withdraw to the right bank of the Vistula, they put up a stubborn resistance on the line of that river (at the fortresses of Ivangorod and near Warsaw), and were able to hold their own until all the Russian armies had reached the positions assigned to them, and were ready to advance. The Russian offensive was scheduled to begin on October 21st, and the main attack was to be launched from the region of Novogeorgievsk and Warsaw by the combined force of two Russian armies (the 2nd and the 5th); the attack was aimed at the left flank and rear of the German front. But quite unexpectedly in the night of October 19th the German left facing the Vistula to the south of Warsaw began to fall back, and soon the whole German-Austrian front was in full retreat. Thus the attack planned by the Russians did not materialize: the enemy had escaped. Had the Germans remained on their front two days longer, their position might have become critical. At the time of that retreat the "clairvoyance" of the German High Command could be little understood, but now the mystery has been explained. The author of *Kriegs und Industrie Spionage* tells us that the retreat from the Vistula toward Silesia was ordered by General Hindenburg because it had become clear, after the deciphering

⁴On October 9th that army only started to assemble at the city of Lublin to entrain there in order to be transported to Warsaw, about 100 miles away from the former place.



Eastern Theater of War

of the Russian radio messages, that the German and Austrian forces were greatly outnumbered by the Russians. To prove the accuracy of his statement General Ronge cites figures which show the distribution of the Russian divisions among the various parts of the front at that time; from these figures the numerical superiority of the Russian forces facing the German left may be clearly seen.

The blow aimed at the German left and rear had been averted, but the danger of a Russian offensive was still present: the round was not over. The retreating Teutonic armies might be pursued and overtaken. In point of fact the Russian High Command, upon learning of the escape of the Germans, changed its plan and immediately gave orders to pursue the enemy and force them to accept a battle. The situation of the Teutonic armies remained serious, but one important circumstance was still favorable to them. General Ronge writes: "Our radio service was able to discover at once the intentions of the enemy leaders, and already by the end of October our information about the enemy forces was subjected to such a thorough checking that our data about the daily disposition of the Russian troops, from a division up, could not have differed very much from those of the Russian General Headquarters." In this struggle in which one side knew every move of its opponent, while the other side had to grope in the dark, the outcome might have been told in advance. What actually happened is as clear now as it

was mysterious and unexpected to the Russians at the time when their offensive was in progress. The facts were as follows: The German and Austrian armies retreated from the line Warsaw-Ivangorod-Sandomir in a southwesterly direction, toward Breslau and Cracow; as they fell back they destroyed the railways and bridges and offered a strong resistance to the pursuing Russians. By November 8th the main German force reached the line Kalish-Chenstokhov, running along the westernmost frontier of Russian Poland (the western face of the "Polish salient"), and, according to the Russian information, started to fortify that line. On November 13th an order was given to the Russian armies, which were less than two days' march away from the enemy front, to take the offensive against the line Kalish-Chenstokhov where the main German force was supposed to have taken up a position. But in the afternoon of the same day (General Ronge writes) the wireless message in which this order had been sent to the Russian armies "lay deciphered on the desk in our (the Austrian) office of military operations and on the desk of the office of the German Headquarters in Posen as well." The information contained in this message "immediately put an end to the divergence of opinion of the (Teutonic) Allies" as to the best plan for further action. Knowing that the Russian forces were concentrated in front of the line Kalish-Chenstokhov, with their right flank exposed to an attack from the northwest, the German High Command gathered a strong force to the north of Kalish, between the rivers Varta and Vistula, and launched that force from the line Wreschen-Thorn along the left bank of the Vistula with the object of turning the right flank of the advancing Russian front. The Russian offensive was stopped for the second time. Evidently proud of the invaluable achievements of the Austrian radio intelligence service, of which he was in charge, General Ronge makes an ironical remark with regard to the inability of the Russians to find out how such complete information reached their opponents. He writes: "For a long time the Russians had wondered about our excellent orientation, but finally they came to the conclusion, which the *Novoye Vremya* (a Russian daily) expressed in an article of November 11th, that the German air reconnaissance was responsible for it."

The German counter-offensive between the rivers Varta and Vistula progressed quickly, and eventually led to the extremely complicated battle of Lodz (November 18-24). The whole operation which ended with the battle of Lodz is of special interest because in that operation more than in any other episode of the War it was made clear to what extent the successful action of the Germans depended on the good services of the Austrian radio intelligence. Having succeeded in cutting off two Russian armies (the 2nd and the 5th) from the remaining Russian

force, the Germans were doing their utmost to surround these armies. But at the time of these important engagements an unexpected thing happened: the Russians changed their cipher. General Ronge thus describes the effect which that change had on the Austro-German leaders: "We were living through a crisis. At the very time when our encircling movement seemed to have reached its highest point, and the surrender of the two Russian armies, surrounded by the Germans near Lodz, seemed certain, our best means of securing information became useless. The radio stations, both ours and the Germans', set to work together on the newly received ciphered messages . . . and as a result of the joint effort the new code was deciphered on November 22nd." Thus during the few days preceding the above date, the Germans were in the same position with regard to the knowledge of the situation of the opposing side as were the Russians, and it is highly significant that during those decisive days the German plan of surrounding the Russian armies failed, and a part of the German turning force (the 25th Reserve corps and the 3d Division of the Guard) was surrounded by the Russians and escaped from the Russian ring only with the greatest difficulty, leaving behind many prisoners. The first Russian message deciphered by the Austrians after they succeeded in working out the new Russian cipher, contained information (General Ronge writes) "about the breaking of the German encirclement" by the Russians and also information about the directions in which the retreating Germans were being pursued. Thus the hopes of the Germans for a great victory were "wrecked," but the information enabled them to carry out their retreat safely.

How is one to explain the remarkable results obtained during the War by the Austrians in the deciphering of intercepted messages? One factor to be taken into account in attempting an explanation is the experience in work of this kind gained by the experts of the Austrian cipher service ("Chiffredienst") during the years preceding the War. Another factor to be considered is that the Russians made mistakes in the employment of their ciphers. From General Ronge's book it may be learned that as early as 1908—that is, at the time when the relations between Austria-Hungary and Serbia became strained on account of the annexation of Bosnia and Herzegovina, the Austrian intelligence service was busy deciphering Serbian messages. Later in 1911-1912, during the Turko-Italian war in Tripoli, a special section was formed in the Intelligence Bureau of the Austrian General Staff for the purpose of deciphering the radio messages intercepted by the Austrian naval wireless station. Still later, during the Balkan wars of 1912-1913, the Austrian cipher experts acquired an important fund of material, namely a large number of intercepted Serbian messages. Working on that material, the experts succeeded in obtaining excellent results, thanks to which "the deciphering of Serbian messages [before the War] presented no difficulties." As regards the deciphering of

*The German 9th army under Mackensen, reinforced by two corps of the German 8th army in East Prussia; in the latter part of November this force was increased by four corps from the Western front and by the garrisons of the fortresses Thorn, Posen and Breslau.

Russian messages before the War, the Austrian General Staff was less fortunate. The secret of the Russian cipher was not disclosed until fifty days after the World War began—that is, on September 19, 1914, as it has been already said. From that time on, General Ronge says, the deciphering of Russian messages was, "with the exception of some unavoidable mutilations, no longer difficult." This statement is supported by the following figures: up to the beginning of 1915 sixteen Russian ciphers were unravelled, and during the War there were days when the number of deciphered messages reached as many as seventy; for instance, this was the number of messages deciphered on June 4, 1916, the day when the Brusiloff offensive began.

What were the Russian mistakes in using the cipher? One mistake made in the beginning of the War, and righted after six weeks, has been already pointed out. It consisted in sending messages of which only certain parts were in cipher. Another mistake—we learn from General Ronge's revelations—consisted in using two ciphers, the old and the new, for identical dispatches. This violation of the fundamental rules of ciphering was made on the occasions when a change of cipher was taking place. Stations that had not received the new cipher in time would report their difficulty, and the message that had been communicated to them in the new cipher would be put into the old cipher and dispatched again. "Nothing more was required by our cipher experts," Ronge remarks with regard to this careless way of overcoming a difficulty. Still another mistake, according to the Austrian general, was that "the systematic Russians stuck pretty near to the method of ciphering to which they had become accustomed." This, of course, facilitated the process of deciphering their messages.

Thus the wireless telegraph proved to be a great disadvantage for the Russians: their army orders and reports sent by radio were known to the opposing side as well and as soon as they were known to those to whom they had been addressed. Speaking of this fact in his review^a of General Ronge's book, General Batyushin, of the former Russian General Staff, maintains that the military action of the Russians in the World War would have been much more successful, if they had not used wireless telegraphy at all. The correctness of this statement he proves by citing two examples: first, the defeat of the Austro-Hungarian armies in the battle of Galicia in August and the earlier part of September, 1914, and, second, the initial success of the Russian army of General Rennenkampf in East Prussia in August, 1914; both Russian

successes were won at a time when the Austrians and the Germans had not yet succeeded in discovering the secret of the Russian cipher. These two examples constituted exceptions from the general order of things during the World War in which as a rule the Russians had to fight in the dark, while for the Germans and the Austrians the military situation of their opponent was as clear as daylight.

It now remains to be seen what lessons may be derived from all that was said above. It seems that the sad experience of the Russians fully reveals the extreme disadvantage at which an army in the field may be placed if it freely uses the wireless telegraph. Hence it follows that, except in circumstances when no other means of liaison can be resorted to, the wireless must not be used by an army for strategic communications or for any other dispatches that contain information useful for the enemy. Furthermore, the cipher in which radio messages are sent must be as difficult as possible to decode.

However, the elimination of the wireless as a means of sending strategic directives, long orders and detailed information does not mean that this invention may not be of the greatest service in time of war. But to be of such service, the radio, when used for strategic purposes, must be limited to the sending of brief messages and commands which are rather signals for initiating, changing or stopping movements previously decided upon. Next, the radio should be used for purposes other than strategical. In this respect the tactical use of the radio should be placed first. Tactically the radio may be used for giving orders which call for immediate execution and which the enemy would not be able to prevent from being carried out should the messages be intercepted. For instance: an order to a firing battery to open fire against a new target may be sent over the radio because the fire of the battery will be carried over to the new target whether the enemy intercepts the order or not. Furthermore, the wireless should be used for the interception of radio messages of the enemy, not only to find out what is going on on his front (provided the enemy messages relate to the conduct of military operations), but also to get information of the situation in the rear, that is, in the interior of the enemy country. Another important service of the radio-telegraph may consist in broadcasting messages with a view to disseminating news and communications which may lower the morale of the enemy, contribute to the breaking of his resistance, and induce him to ask for peace.

EDITOR'S NOTE: The author of this article was a colonel in the Imperial Russian Army and served on the Russian General Staff during the World War. He was formerly a military attaché at both Washington and Tokyo.



A STUDY OF HISTORY seems to indicate that it has been the nations with the least armament who have done much of the fighting.—STOCKTON.

^aVestnik Voennykh Znanii. Sarajevo, 1931, nos. 9, 10.

Motor Convoys

BY CAPTAIN J. T. DE CAMP, C. A. C.

During the period April 15-19, 1935, a motor convoy was conducted by the C. A. School. This paper is a résumé of the various points brought out in the official report.—EDITOR.

SOME two years ago the COAST ARTILLERY JOURNAL published an article on Motor Convoys which had been prepared for use at the Coast Artillery School. Briefly, it attempted to bring together the general thought on this subject as published in official literature and as taught at the various service schools, with certain modifications believed desirable to adopt our past experiences to the improvements in vehicles to be purchased in the future. This year conditions so shaped themselves that it was possible actually to go on the road and attempt to prove our theories in practice.

With an enlarged Electrical "B" class of 22 students, the personnel was available for detailed collection and analysis of data. At the same time the receipt of new transportation made it possible to test the capabilities of the various type vehicles. Accordingly in the latter part of January, 1935, an outline of the proposed convoy was submitted to the Commandant, and authority was granted to begin the preliminary arrangements.

A tentative route of march was selected via Lynchburg and Winchester, Va., to Fort Holabird, where it was desired to stop for student instruction, and from there to return through Washington, D. C. The most difficult route was selected over the Blue Ridge Mountains and through Harper's Ferry to obtain mountain driving, and through Richmond, Washington and Baltimore (twice) so as to include routes through congested areas.

In order to make this movement as realistic as possible, no preliminary reconnaissance was made; all arrangements other than correspondence relative to shelter, contact of police escorts and fuel agencies were made by the Advance Agent operating just ahead of the column. From Richmond to Holabird the route was entirely unknown, except as contained in state highway maps. Word being received that the accommodations in the Winchester, Va., armory were inadequate, the route was changed on April 9, 1935, to make the halt on the second day at Captain Paul W. Rutledge's C.C.C. Headquarters near Front Royal, Va.

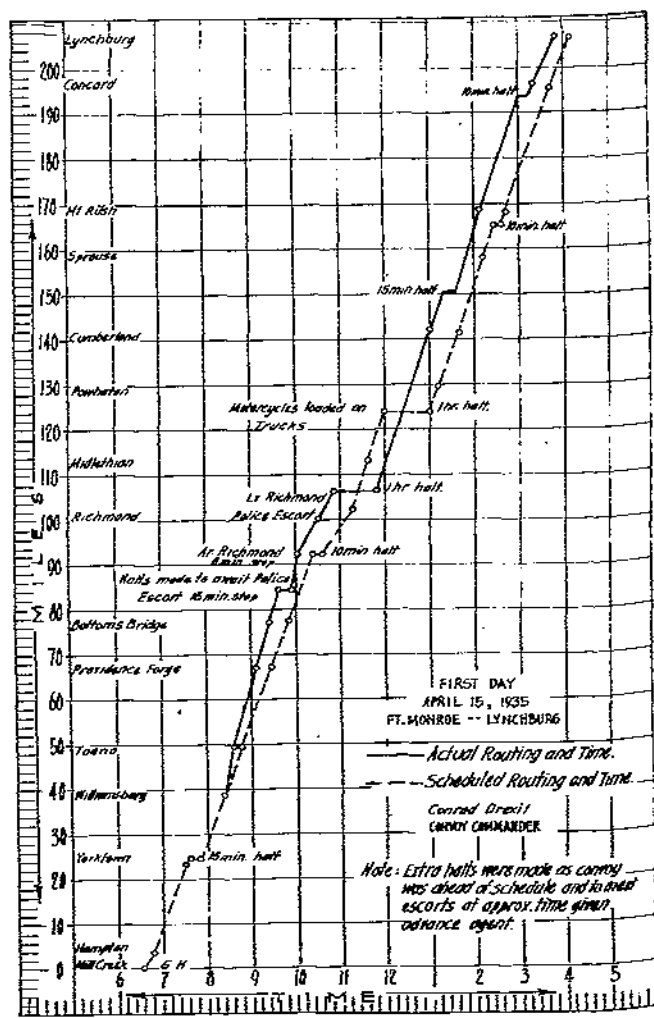
On April 12th the entire convoy was brought together for the first time for a short trip to Yorktown, Va. Twenty-two students were assigned to different positions daily as understudies to the officers or as truckmasters, mechanics and drivers. The regular drivers from the Motor Pool, two selected mechanics and a mess detail, completed the personnel. Just before starting, two radio students were added to handle the radio equipment which was installed by the Coast Artillery Board.

The organization can be summarized as follows: excellent key men, drivers of variable training and no experience in convoys, and a composite of Harbor Defense and School personnel.

The vehicles consisted of:

- 6 Federal 2½ ton trucks (4 wheel drive).
- 10 Dodge 2½ ton trucks.
- 2 Dodge ½ ton pick-ups.
- 2 Chevrolet 1½ ton trucks.
- 2 Diamond "T".
- 1 Chevrolet reconnaissance car.
- 1 Plymouth sedan.
- 2 Motorcycles.

The Dodge trucks arrived on the Post so late it was necessary to run them on jacks for two days to break them in, as the convoy departure was suddenly pushed ahead one week, to take care of troop requirements. Otherwise



Schedule of First Day

all vehicles had been carefully tested and defects corrected. Capacity loads were concentrated in certain vehicles; in fact there was plenty of freight to move to and from Holabird. A carefully selected list of minor spare parts, such as fuel pumps, fan belts, starting motor springs, fuses and light bulbs was assembled, along with the complete equipment for a light repair truck. No gas tank or wrecker was available. It was decided before departure that if any major part went out the vehicle would be left behind for repairs.

NARRATIVE

FIRST DAY: Fort Monroe to Lynchburg, Va. Distance 206 miles.

Soon after the start it was evident that the convoy was running ahead of schedule. Extra halts were made throughout the day in order not to arrive too far in advance of time of contacting police escorts.

It was found that the motorcycles were entirely unsuited for purposes intended. The column would travel a distance of six to eight miles while a message was being delivered from the rear to the head of the column. The drivers complained of fatigue and it is believed motorcycles are dangerous to operate under normal conditions. Therefore the motorcycles were loaded on spare trucks at the noon halt and left there the remainder of the trip.

At Lynchburg it was necessary to refuel all vehicles from a commercial station, due to a local ordinance, and to route the vehicles individually to the local armory. Considerable difficulty was encountered owing to congested traffic and narrow, hilly streets. While all vehicles were refueled in 40 minutes, the entrance to the station was on a steep hill and we were most fortunate in having no serious accidents in the very heavy traffic. This was the first experience for the drivers under these conditions, as they had been trained in the tidewater district of Virginia. It was also necessary to establish the field kitchen in the local stadium some two blocks away from the armory.

There was no trouble on the road. The convoy arrived ahead of schedule, traveling at an average rate of 28.2 miles per hour. Time in motion: 7 hours, 19 minutes.

CONCLUSIONS: While the accommodations within the armory were excellent, stopping in the center of a city offers difficulties which it would be well to avoid.

SECOND DAY: Lynchburg, Va., to camp near Front Royal, Va. Distance 175 miles.

The schedule was arranged to move over the mountains at 15 miles per hour. The day was unusually cold for the season, minimum temperatures being 18 degrees. The drivers had to be most alert in maneuvering the large trucks around the hairpin curves. Traffic interference was bad between Lexington and Staunton due to the narrow high-crowned road and heavy truck traffic.

On arrival at Front Royal the advance agent had arranged for two commercial gas tanks to fall in rear of the column and follow the convoy to the C.C.C. camp. It was necessary to drain all radiators of the vehicles this night.

There were no road troubles. The convoy arrived on schedule, traveling at an average rate of 22.5 miles per hour. This was due to the reduced speed over the mountains. Time in motion: 7 hours, 45 minutes.

CONCLUSIONS: The convoy could have proceeded at a higher rate of speed over the mountains if the route had been covered in advance and if the drivers had had previous experience in mountain driving. All personnel were comfortable while driving, but were most uncomfortable at halts due to the raw wind and low temperature.

THIRD DAY: Camp near Front Royal, Va., to Fort Holabird, Md., via Harper's Ferry and Baltimore. Distance 121 miles.

The scheduled start was 6:00 A.M. The previous night it was decided to change this to 6:30 A.M. Due to the necessity of filling radiators from a mountain stream and a careless driver hitting an obstruction which required his truck to be left behind for repair, it was 7:10 A.M. before the convoy moved out. Another delay was caused just beyond Front Royal where a bridge was under repair and allowed only one vehicle to pass over at a time. All in all the convoy was one hour 40 minutes behind the prepared schedule when finally on the road. At Harper's Ferry the approach to the toll bridge is over a steep down grade with a right angle turn at the foot. Steep grades were encountered on both sides of this point.

The convoy actually operated under the scheduled running time. The truck left behind arrived one hour after the arrival of the convoy. (Note: The shackle bolt support was sheared off.)

There were no other road troubles. Average rate of travel 22.5 miles per hour. Time in motion: 5 hours, 21 minutes.

CONCLUSIONS: Local information can be obtained to supplement state highway maps, so the advance agent can make arrangements sufficiently in advance. However, minor delays must be expected when moving in strange country. The delay due to filling radiators had not been anticipated. While the convoy was only 20 minutes late in arrival, this day's operation illustrated the difficulty of making up lost time.

FOURTH DAY: Fort Holabird, Md., to Fort Belvoir, Va. Distance 62 miles.

This march was through a heavily congested area, largely made under police escort. Both the third and fourth day marches had been arranged so that the Chevrolet Assembly Plant could be inspected Wednesday afternoon and the Holabird Shops on Thursday morning. Three men were detached at Holabird to proceed to Fort Totten to bring a searchlight unit to Fort Monroe.

All vehicles had been cleaned and serviced during the lay-over at Ft. Holabird. There were no road troubles. Average rate of march was 20.8 miles per hour. Time in motion: 3 hours, 5 minutes.

CONCLUSIONS: With trained police escorts, the convoy ran ahead of schedule and could have moved at even a higher average speed without difficulty.

FIFTH DAY: Fort Belvoir to Fort Monroe. Distance 169 miles.

Except for very heavy traffic as far as Fredericksburg there were no unusual incidents. A hot meal was served just before embarking on the Yorktown Ferry. The kitchen section went across at 1:15, the 1st section at 1:45 and the 2nd section at 2:15. Each unit proceeded independently to Fort Monroe.

During part of this run effort was made to attain maximum speed. Average speeds were maintained at 31 miles per hour. At road speeds over 35 miles per hour, it was found that the convoy became over-extended.

On this day the maintenance section had their first work while the convoy was en route. One Dodge dropped out for adjustment on governor, while a fuel pump had to be replaced on the ambulance. The convoy was not delayed. Average rate of travel was 27.5 miles per hour. Time in motion: 6 hours, 9 minutes. It is interesting to note that while the convoy was run at higher speeds than on the first day, the average was lower, because of low average speed to Fredericksburg and from the Yorktown ferry to Fort Monroe. No effort was made to move by earlier ferries as it was desired to arrive at Fort Monroe on schedule.

CONCLUSIONS: The vehicles recently furnished have excellent operating characteristics and developed no outstanding defects. However, an unusually thorough inspection had been given each vehicle on receipt at Fort Monroe, and numerous minor defects were corrected before leaving. The maintenance work each evening was efficiently handled by Lt. Morton, and to that I attribute the fact that this convoy was able to travel 731 miles without any serious roadside maintenance problems. (Note: An average of $1\frac{1}{2}$ hours' intensive work each evening was put in before the drivers and mechanics were dismissed.)

First, as to schedules. They can be prepared in advance and maintained without extensive road reconnaissance, by allowing a certain margin of safety, when traveling on U. S. and State Highways. However, we believe more firmly than ever that except for short trips and in emergencies, the day's schedule should be based primarily on 8 hours' actual driving time, and that approximately five hours of this should be completed before the noon halt. Fatigue is noticeable in any heavier schedule and is bound to be reflected in accidents and neglect of the servicing at the end of the day's run.

As for distances and speed, a convoy of this size and type, without any trailers, runs best at around 30-35 miles an hour over good roads where the traffic is not too heavy and distances are extended to 6-8 truck lengths. Distances that may be covered will be variable depending upon many other factors, as condition of roads, weather, traffic, and state of training, but a maximum of up to 200 miles at average rate of 25 miles per hour seems a reason-

able expectation in the type terrain covered by this movement.

Motorcycles were found to be of little or no value for convoy control. The vehicles were moving at such a rate of speed that messages of immediate importance could not be delivered. To avoid needless delay and to expedite the movement we are convinced that radio control is essential and that motorcycles will not adequately serve the purpose. While the radio equipment furnished by the Coast Artillery Board was hastily assembled, it began to function more efficiently towards the end, and proved of value on several occasions. It is understood further development work will be done along this line.

While outside the purpose of this article, the question has frequently been asked as to the application of a high speed convoy within an AA Regiment. In the theater of operations, with the present tendency to increase motorization of units, distances covered must be more and more subordinate to traffic control, time schedules and the importance of conserving the equipment and personnel, except in emergencies. Under such conditions it is believed that when needed, speedy units must be kept small and that the largest march unit should be the battery rather than the battalion. When visualizing a unit, forced to march in daylight and subject to surprise attack from the air, it is believed convoys will have to move in small sections. For this purpose flexibility and ease of control would be needed. Ultra high frequency radio telephone with a range up to five miles would appear essential under these conditions. On the other hand, night marches, which will be common, increase the difficulty of control and again indicate the necessity for small flexible units under radio control.

As to the vehicles themselves, we were well satisfied in general with their performance. The bodies, however, are not up to the standard of the old Class B trucks. Inspection, lubrication and daily maintenance are more important than ever. Maintenance problems on the road will vary inversely as these functions are carried out. The large trucks will carry enough fuel for an average day's run without refueling on the road, thus vastly simplifying this problem.

As for personnel, we need a limited number of highly trained key men in each motorized unit. In this respect, the Coast Artillery School is training a combination searchlight and an AA fire control electrician who, in addition, is a technically trained motor transport man, for assignment to regimental motor cadres or searchlight units. These men should have the same broad training and qualifications as our other N.C.O. Staff.

In conclusion, it is believed our future development will be along the line of small, speedy convoys, controlled by radio except in congested front line areas, and that our motor requirements should be kept within the field of commercial development, with the absolute minimum of special types and heavy trailers.

Chemical Security—Part II

BY CAPTAIN ALDEN H. WAITT
Chemical Warfare Service

Photos by C. W. S.

RECONNAISSANCE is one of the principal factors in chemical security. All reconnaissance activities should be carried out with careful reference to chemical warfare considerations. In active operations, chemical reconnaissance is the principal responsibility of the unit gas officer for brigades and lower units; for divisions it is an important duty of the protective section of the chemical officer's staff. In the future, even in rear areas, commanders must keep in mind the possibility of persistent gas along their routes of march. Only by careful reconnaissance can there be assurance that a command is not running into areas which have been contaminated with mustard gas or lewisite.

This type of reconnaissance must be carried out by personnel trained in chemical warfare. It involves a knowledge of the possible uses of chemicals by the enemy, the behavior of chemicals on various types of terrain, and the effect of weather on chemicals. At the same time, personnel must be thoroughly familiar with the situations that affect their own particular arm.

Probable danger areas are identified by map reconnaissance. This must be followed by personal reconnaissance to determine the actual danger areas.

If reconnaissance is being made to determine the best route to take to avoid a gassed area, consideration must be given to the character of the command. A route that will be acceptable to the infantry may not be possible for the artillery, and one that can be crossed by horse cavalry may be impossible for tractor-drawn artillery. In the selection of battery positions to avoid gassed areas, a special knowledge of the artillery problems is absolutely essential.

It is therefore certain that there is a requirement for personnel trained in chemical warfare as it applies to the separate arms. It is not so easy to determine, however, whether the personnel should be from the arm with special chemical warfare training or from the Chemical Warfare Service with special training in the arm. As it stands now, the organization for chemical reconnaissance will follow the scheme set up for unit gas officers and noncommissioned officers. The basic field manual "Defense Against Chemical Attack" provides for a gas officer and noncommissioned officer in each regiment and battalion, and two noncommissioned officers qualified in each company. It is my own belief that this protective organization

Reconnaissance — Plans of Protection.

will not be adequate if chemicals are used on a large scale, but, assuming no change, the regimental, battalion, and company gas officers and their gas noncoms will make the necessary reconnaissance for their respective organizations.

In the Italian Army, special patrols for chemical defense are provided. Their duties are described in detail in the training regulations.* Every company has a patrol consisting of a corporal and three men for chemical recon-

naissance. Each battalion has a similar reconnaissance patrol. Company and battalion patrols frequently operate together under the orders of the chemical defense officer of the battalion. The special duties of these patrols are to keep track of weather conditions and the probability of chemical attack; to guard against surprise; to conduct chemical observation; and to cover the company chemically in the most dangerous direction.

A German course of training in defense against gas, discussing tactical measures, says: "According to the French Gas Regulations, the security of troops against enemy gas really depends upon two types of tactical measures, both of which are in accord with the basic principles of military security, viz., careful reconnaissance and immediate transmission of reports containing all positive findings, and secondly, stationing the troops in a terrain that is not endangered or one which has been properly equipped for defense against gas."

For distant reconnaissance we depend on airplanes, horse cavalry, or mechan-

ized forces. Specially trained observers with these units will be necessary. By air observation and air photographs, the suitability of the terrain as a gas target may be determined. A skilled observer may also pick up large areas that have been gassed. In an advance into hostile territory, over terrain accessible to enemy bombers, or which has been occupied by the enemy, the location of contaminated areas should be sought by air observation and by the highly mobile ground elements.

For close reconnaissance the chemical staff and unit gas officers will conduct a detailed reconnaissance.

While making complete use of the information de-



*Complete Protection
Against Gas.*

*Instructions on Defense Against the Combat Chemicals, Military Chemical Department, Italian Ministry of War, Rome, May 1930.

*Degassing Squad*

veloped by the distant reconnaissance, each unit as it comes closer to the enemy must reconnoiter its front and flanks, not only to determine the presence of gas, but to select the safest routes of approach. It should locate also alternate routes that may be used in the event that the routes selected are gassed.

My conception of protective procedure on the march or when moving into new positions is that the unit gas officers, with such staff as they have, will march with the advance party. Someone skilled in the identification of agents and able to recognize gas immediately, should be with the point. Trained observers will also be necessary on the flanks, especially on the upwind side.

If persistent gas be located, or if warning be received that there is a gas area along the route, the unit gas officer should determine the extent of the area and recommend whether to go around it or through it. If the area must be traversed, he should take such steps to minimize the gas danger as are practicable.

In the selection of resting points, bivouac areas, and battle positions, contaminated places or gas traps must be avoided.

When a gassed area is located, careful reconnaissance should determine its extent, the kind of gas, whether concentration is strong or weak, and the best way of getting around or through it. If a good route that skirts the upwind edge of the gassed locality be available the command can proceed without difficulty or much loss of time. If there be no good upwind passage, but a good route downwind exists, the troops can get past safely by wearing the gas mask. Many times, however, no way around the area will be practicable and the command must march through as quickly as possible. The job of the reconnaissance party is to determine the situation and find the best way through. It may be necessary for degassing squads to prepare a passage, although this is not easy and can only be accomplished properly by trained personnel.

Given anti-gas squads properly equipped and trained, the burden of chemical reconnaissance will not be excessive, but it must be emphasized that the gas danger can be reduced only by careful planning, organization, training, and the maintenance of gas discipline.

The most significant change that chemicals have intro-

duced into modern battle is that caused by the effect of areas of persistent gas on movement. Since freedom of maneuver is essential to successful military action—whether offensive or defensive—anything that interferes with this freedom must be combatted. Persistent chemical agents have introduced a new factor in warfare which puts an additional premium on careful preparation and skillful maneuver.

K. Litvinov, in the May-June, 1933, issue of the Russian journal, "War and Revolution," states:

"Modern attack without first overcoming the gas obstacles of various types and character is impossible. Only a coincidence of entirely exceptional circumstances may prevent the enemy from employment of this effective arm in order to strengthen his defense. The present development of the technique of terrain poisoning enables one so effectively to poison extensive stretches of the country that they can be crossed only with the greatest difficulty."

Litvinov suggests several technical means of protection. Men must be equipped with gas-proof boots and capes. In some cases chloride of lime may be scattered on the ground to neutralize the mustard gas or lewisite. This is accomplished with the aid of mechanical devices. Where practicable, the ground may be burned over, and there is even a suggestion that tractor-driven scrapers may be employed for removing the surface of the ground. Such means are of doubtful practicability, and their difficulty is recognized by the Russian writer.

Litvinov favors a method which is also mentioned by the British in their "Tactical Notes on Defense Against Gas"—the laying down of protective capes. The combat echelons cross the contaminated area under cover of smoke, wearing gas-proof foot-gear and carrying capes or similar devices for covering the ground. They advance by rushes in small groups. The capes are thrown on the ground and left there, one cape serving several men. Other men come forward with fresh capes, and as the advance progresses, the capes form small islands of protection against the contaminated surface. It is understood that the Japanese plan to use rolls of grass matting in a somewhat similar manner.

Gas obstacles will generally be covered by fire in order to keep the attack close to the ground, and hence in contact with the chemicals. Some means must therefore be devised to keep the soldier's body from contamination. The protective cape, however, is not an entirely satisfactory solution.

In position and zone defense extensive use of mustard gas obstacles is to be expected and they will be used to an even greater extent in a retreat. Obviously, such gas obstacles do not physically bar passage since the effects of the mustard gas, unless the individual be grossly contaminated, will not show up until several hours after exposure. Consequently, the soldier, aside from some loss in morale, will be able to fight for six or eight hours or even longer. Troops can get across infected terrain, and will get across it if the need is sufficiently great. It was one of Napoleon's war maxims that "An army can pass

always and in every season wherever there is room for two soldiers' feet." However, the commander who is faced with a mustard gas obstacle must consider what is going to happen to his men in passing through it. It may well be that the situation may not justify risking excessive casualties.

Efficient protective clothing will be an important factor in reducing casualties. Every effort is being made in our own army to provide this protection, and these efforts have met with considerable success. Nevertheless, the presence of mustard gas on ground will cause a command to mask and this masking in itself will slow up movement. The time factor is definitely affected whether troops are on the march or engaged in an attack.

Let us assume a regiment is ordered to reach a certain forming-up point seven or eight miles away at a definite time so as to be ready to begin the assault at daybreak. If a concentration of mustard gas has been placed on the routes the regiment is to follow, there will be delay in reaching the point of departure. In order to be on time, the regimental commander must start his movement earlier for he will have to go either around the area by a longer way or through the area wearing gas masks. It is estimated that the rate of march of a command wearing masks is reduced from $\frac{1}{4}$ to $\frac{1}{3}$ during the first hour of march and more thereafter.

The necessity for training in wearing the mask while working or fighting deserves further emphasis. The curve of effectiveness rises rapidly after a few exercises in wearing the mask at work. A commander will find it an excellent investment to require the wearing of the mask during a part of the regular training. In wartime this is essential if the delays caused by persistent gas are to be reduced. The Russians realize this and reports indicate that Russian troops are frequently required to wear gas masks on long practice marches. We have a splendid gas mask, probably the finest in the world, but, good as it is, it lowers a man's efficiency. This loss in efficiency cannot be prevented by one or two hours drill a year in putting the mask on and taking it off. Training in wearing the mask and working in it for extended periods is necessary. Each soldier should have a gas mask as a part of his individual equipment and should be continually trained in wearing it while performing his military duties.

Everywhere a persistent gas is used it slows up operations and causes loss of time. The commander, in making his calculations, must take this into account. The protective means at his disposal are protective equipment and the tactical means of reconnaissance, information, and planning. If properly used, the unit gas officer should play a big part in the protection of his command.

A subject that was given very little attention during the World War, but one of paramount importance, is what may be called "Planning for Protection." This involves the making of plans in advance for the movement of troops to alternate positions in case of gas attacks.

Many gas casualties could have been avoided during the World War had adequate schemes been outlined in

advance for the movement of troops to alternative positions in the case of mustard gas attacks. In offensive situations, plans are necessary to determine the action to be taken upon meeting gassed areas. On the defensive, there should be a plan as to what each separate unit will do if it encounters mustard-type agents. This is especially important where the position is to be occupied for twelve hours or longer.

I can recall instances in my own division during the World War where unnecessary gas casualties resulted because authority had not been obtained and plans had not been made in advance for the movement to alternate positions. Men were compelled to remain on mustardized terrain when they could have been withdrawn and the ground held by a few machine guns on each flank. After one particularly severe lesson, arrangements were made to withdraw troops from contaminated positions or to relieve them frequently.

A striking opportunity for comparison occurred when gas attacks under almost identical conditions were made upon two companies of the same battalion within a period of about 18 hours. In the first attack the company was not moved out of the position for 14 hours. This resulted in 256 casualties out of 300 men exposed. The second attack, with 250 men exposed, resulted in only seven casualties going to the field hospital and about 50 being treated for slight eye burns. Here the troops were withdrawn as soon as the nature of the attack was recognized, and guards were posted to keep men out of the gassed area. The same type of ground, the same area contaminated, approximately the same number and kind of gas shells, and same type of troops—yet one body of men suffered heavily while the other got off lightly.

Lieutenant Colonel M. E. Spalding, Infantry, in the January, 1934, *Chemical Warfare Bulletin*, describes a World War situation involving the 82d and 89th divisions, in which mustard gas was used with great effectiveness by the Germans. He shows how, by proper planning and movement to alternate positions, casualties could have been cut down to a small fraction of those suffered.

His conclusions are that many casualties could have been avoided if higher authority had foreseen the attack and had placed the responsibility for moving to alternate positions upon subordinate commanders. He meets the argument that the working out of a preconceived plan is unwieldy and complicated by stating that the problem is no different from a hundred-and-one other problems that confront commanders—problems which cannot be avoided and therefore should be systematically studied. He points out that we provide for the conduct of troops in the event of enemy penetration, for the prompt movement of reserves, for the shifting of artillery fires under a variety of conditions, and for counter-attacks under various situations, yet rarely if ever do we provide for definite steps to be taken in the event of a serious gas attack. He contends that within his own sector, the division commander should be permitted to make provision for

the prompt evacuation of heavily gassed areas. This is plain common sense since we will be forced, sooner or later, to evacuate a gassed area, and the longer men stay in that area the greater will be the number and the more serious will be the nature of the casualties.

The more we know about chemical warfare the better able we will be to function when subjected to it. The man who has trained and worked with chemical agents knows just how far he can go and what to expect. The officer who has considered gas situations in map problems and field exercises will know how to meet chemical situations in war.

Problems that result from the use of gas are not alone the problem of the Chemical Warfare Service. They

(To be Continued)

must be solved on the battlefield by the arms who will be subjected to gas attacks. If chemical security be neglected, the fighting man will sustain the losses. For this reason, in the training of units—especially in field training—considerable thought should be given to the inclusion of gas situations. Exercises should be held which take into account the possibility of gas and how it may influence the decisions of a commander and the actions of his command. Not to do this is sheer folly.

Knowledge is power in gas defense. It saves casualties, increases the confidence of men in their own ability to protect themselves, and reduces fear. The more knowledge we have of gas, the less gas can tie us down and hinder our freedom of action.

Efficiency Reports

By LIEUTENANT COLONEL E. S. HUGHES, O.D.

CAN a second lieutenant of six months' service be compared reasonably with one who has had six years' service? Can a captain who has never commanded a company reasonably be compared with one who has commanded a war strength company? The questions are fundamental. They strike at the heart of our system of efficiency reports. They deserve discussion and an answer.

We know that we can compare lieutenants from the standpoint of the size of their hat bands and their feet regardless of their length of service. We hear and make such remarks as, "He is the *most* tactful lieutenant I ever saw," or "He is the *least* forceful captain on the post." In paragraph "H" of the Efficiency Report, subordinates are rated as "Superior," "Excellent" or something else from the standpoints of physical activity, military bearing and neatness, tact, and so on. The ease with which reporting officers insert the check marks in the columns of "H," and the frequency of such remarks as those quoted, are indications that comparisons are not too difficult provided there is something in common to the individuals of the group being compared. The answer therefore if there be one, appears to depend upon our ability to limit our comparisons to those that have a common basis.

Two comparisons are necessary. The first that of an officer to "officers of the Army." The second is that of the individual to others performing the same or similar duty.

Regardless of the duty that he may be performing during a particular period, every officer is first of all an officer of the Army. As such he must meet certain definite specifications. He must be neat, maintain a soldierly appearance, be truthful, industrious, and in general, possess the numerous qualities and attributes of "an officer and a gentleman." There is no need to list or attempt to define these qualities. Most of them are imponderables and are the result of associations and teachings. But imponderable or not, every subordinate can be classified by

his military superiors as a Superior, Excellent, Satisfactory, or Unsatisfactory officer of the United States Army. From this point of view the second lieutenant of six months' service can be compared with one of six years' service. He can be compared with the captain who has commanded a war strength company, or with any other officer regardless of rank or duty.

The second comparison relates solely to manner of performance of duty. It involves the simple consideration of how the officer being reported upon has performed his duty in comparison with others whom the reporting officer has observed performing the same or very similar duty. If the reporting officer is rating a company commander he compares his performance of this duty with the manner in which other company commanders, past and present, have performed the same duty. If the subordinate be a post exchange officer he is compared with other post exchange officers. If the subordinate be a second lieutenant he may have to be compared with captains or even majors if they have been observed performing the duty. There should be no objection to that for the effect of such a comparison will probably result in the second lieutenant receiving a Superior report if he has performed, in a manner at all creditable, a duty usually assigned to a captain or field officer.

There is nothing novel in this proposal to make two comparisons instead of one. As stated, hundreds of reports are submitted each year on this basis. The only innovation is the suggestion that the comparisons be made *knowingly everywhere* and with particular care at stations where there is no sharp cleavage between hours of duty and hours of leisure. No claim is made that the comparisons can be made automatically or easily. Where such complexities as human beings are concerned, no comparison is easy.

If the idea of two comparisons can be accepted, the next proposal concerns the manner of making them. This procedure can be simplified greatly if reporting officers will rate in accordance with the easily demonstrable fact.

that when the individuals of a group are compared with each other from a particular point of view for the purpose of classifying them into three categories, the great bulk of the individuals will fall in the middle group. The curve of individual differences is the old probability curve. Its two critical points, indicating the logical subdivision into classes, show that about 66% of the individuals compared fall into a large group under the center of the curve. The remaining 34% is divided almost equally under the two ends of the curve. If these three classes be given the names of Superior, Excellent, and Satisfactory, the middle class, Excellent, will contain about 66%, and Superior and Satisfactory, about 17% each of the individuals being compared. At the Satisfactory end, the curve may trail off with another critical point beyond which lie the Unsatisfactories.

Because men cannot agree that the percentages are exactly as stated, that is 66 and 17, no proposal is here made to accept them. For all practical purposes the end will be accomplished if a reporting officer can be persuaded to accept the fact that the great bulk fall in the Excellent class. If this be accepted it will mark a step taken to remedy one great defect of the present system.

This defect is the definition of Satisfactory on the Efficiency Report form; "EFFICIENT; duty WELL performed; UP TO STANDARD." Those phrases are commendations and would make a fine epitaph. Yet when that rating is received in Washington and compared with the other ratings, the reporting officer's statement that his subordinate has performed his duty UP TO STANDARD is construed by the reviewing authorities in the War Department as meaning that the subordinate is just a little more efficient than an Unsatisfactory officer. The reporting officer uses the term in one sense, and it is interpreted in a very different light. "Excellent" must have the wider application.

The proposals herein made will aid officers charged with making assignments in determining what duties the individual can best perform, to what duties he should be assigned for purely training purposes, to what duties he should be assigned if the purpose of the assignment is to get the job performed in the most efficient manner. The proposals will enable the War Department to classify more clearly the men who are Satisfactory or Unsatisfactory and to determine whether they are so classified because of some deficiency as an officer or because of some inability to perform certain duties.

The proposals will protect the individual from the unsound doctrine that any officer can and should perform with complete efficiency any duty to which he may be assigned. Few men can be Superior jacks-of-all-trades. Some men can perform certain duties better than other men. An officer of fine attainments and good character should be pardoned for a failure to perform some particular task, if his record shows that in general he has the ability to perform a wide variety of duties in an efficient manner.

It may be well to point out the danger that lies back of these proposals. That danger lies in the possibility that the reports may be misinterpreted by the authorities in Washington. Although a general rating has been defined as a prediction as to how an officer may be expected to perform duties commensurate with his grade, the manner of making the prediction is not perfectly understood. The definition is based on the assumption that the officers' efficiency reports are form sheets from which it is possible to judge with a fair degree of accuracy how an officer may be expected to perform. The idea was that if an officer had performed efficiently a wide variety of duties commensurate with his grade he could be expected to perform efficiently other duties commensurate with his grade. The assumption required an analysis of the officer's record to determine reasons for alleged success or failure. A form sheet is not used by merely counting the number of starts and determining the number of times the horse won, placed or showed. The best distance for the horse may be a mile and a furlong; the best track, a wet one. So likewise an officer's future cannot be determined by counting the number of Satisfactories or Excellents during a ten-year period. It is possible that during four years of the ten, the subordinate may receive four satisfactory ratings on the same duty from the same reporting officer. It is possible that he is performing the only duty that he can do well. Many other combinations are possible.

So while some reporting officers may feel that the proposals made herein are the solution to many of their difficulties they should be mindful of the fact that their best endeavors to submit a fair report may be defeated by hurried and incomplete analysis by reviewing authorities. If by any chance an Excellent or Superior officer, from the standpoint of an Army officer and ability to perform a variety of tasks, is to be rated as Satisfactory on a particular task, the reporting officer should make it all too plain in the report why he could not give a higher rating. Remember that, while the definition of Satisfactory may be a good epitaph, it won't help an Excellent or Superior subordinate to get to the General Service Schools until after fundamental alterations have been made in the present system of making and interpreting efficiency reports.

In conclusion, A.G.O. Form No. 67, Efficiency Report, can be used to convey the two comparisons herein proposed, provided:

1. Paragraph "E," "Duties he performed," and paragraph "F," "What degree of success has he attained under the following headings," are reserved for the opinion the reporting officer forms as the result of comparing the subordinate's manner of performance of the duty with the manner in which it has been performed by most of the officers he has seen on the job.

2. Paragraph "H," "To what degree has he exhibited the following qualifications?" is reserved for the opinion formed by the reporting officer after he has compared the subordinate with others in the same grade from the standpoint of general ability as an officer of the Army.

Emergency Fire Control Methods

By CAPTAIN JAMES T. CAMPBELL, C.A.C.

A NUMBER of officers who are in closest touch with the technical problems of seacoast artillery believe that there is an urgent need for development of sound doctrines and rules to govern emergency fire control methods. It is generally recognized that there are weaknesses in the standard system, especially those incident to the long lines of communication to outlying stations and to the difficulties of target identification by the distant observer. No one will deny that emergencies are likely to arise, and yet there is very little professional thought or training directed toward the improvement of substitute methods. Professional literature does not deal with the subject in a satisfactory manner. If all the thought and effort that have been spent on the design and promotion of gadgets had been directed into the more profitable channels of analysis and experiment in makeshift, the technique of seacoast artillery would be further advanced today. Proficiency in makeshift implies resourcefulness, which in turn implies a thorough understanding, which, after all, is one thing that may rightfully be expected of an artillery officer.

It is a very common mistake, probably encouraged by training in the traditional methods of gunnery and fire control, to think of range-finding as a necessary adjunct to firing, especially to firing upon a moving target. The truth is that the use of the range to the target is merely a means to an end. It cannot be denied that the best way to determine the pointing is to use position data and transform it into firing data through the use of tables; but there may be times when the only way to keep on fighting will be to fire with poor position data or none at all. In these cases it is possible to deal in firing data directly.

The pointing of the gun is given in terms of two quantities, a horizontal angle and a vertical angle. These quantities are expressed in numbers, the measurements of the angles, so that to each pair of numbers (within the range of what can be set on the gun) there corresponds a single definite pointing of the piece. Now, through the use of any coordinate system one may choose, this same pair of numbers may be made to correspond to a single definite point on a plot or chart. Then to each point of the chart there corresponds a single pointing of the gun, and *vice versa*.

If it becomes known that a particular pointing would have caused a given shot to hit the target, a point corresponding to that pointing can be plotted on the chart and marked with the time of firing of the shot. Assume that this has been done for each of a series of shots fired at successive time intervals. The points will not coincide for two reasons. First, the pointing required to hit the target varies from the time of firing the shot, because of the combined effect of movement of the target and changes in ballistic conditions. Second, the required

pointing varies from shot to shot because of unavoidable variations in ammunition and in the way it is loaded into the gun. The plot therefore deals with three variables: the pointing of the gun, the time of firing a shot, and the scattering of shots due to dispersion. From the positions of the points, considered with respect to time, it is possible to deduce valuable information concerning the pointing likely to be required for a future shot. A prediction can be made with no information other than a knowledge of the pointing that would have produced hits in the past, and this without reference to range, travel, time of flight, meteorological conditions, or any other factors. Furthermore, it has been demonstrated that this kind of prediction can be made to give hits.

Any desired coordinate system may be used to make points correspond to pointings, but it must not be inferred that all systems are equally good for artillery use. Probably the best way to show what is needed in a desirable system will be to show what is wrong with one that is not so good. On an ordinary piece of cross-section paper, lay off the horizontal scale to represent azimuths of pointing, and the vertical scale to represent angles of elevation, both scales being uniform so that equal distances on the chart represent equal increments of angle, horizontal or vertical. Figure 1 shows a chart of this kind with a typical course plotted on it, a course for a target that moved in a straight line at uniform speed. Each of the dots indicates a pointing that would have given a hit, if fired at some particular time. The line drawn through them is the general trend of these points, and the divergences of the individual points from the line is chargeable to dispersion. If one were choosing the pointing to be used for a future shot he would have to forecast the behavior of this curve, in advance, and measure along it a distance that depends upon two things—time and the part of the curve where the measurement is made. The defects of this system are obvious. Even

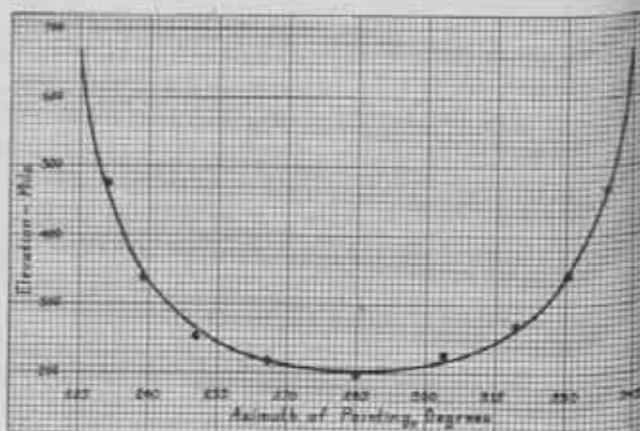


Figure 1

though the target moved along the simplest kind of course, prediction is made difficult if not impossible.

A second defect of this rectangular system is seen clearly after a moment's reflection. The only way to tell what pointing would have given a hit is to fire a shot, record the pointing used, observe the deviation, and from these data deduce the information required. It is highly desirable, if not essential, that the plotting system used be designed so as to assist in these operations. Thus, when the pointing for any shot is selected, a point corresponding to that pointing may be marked on the chart to serve as a record of that pointing. Then, when the deviation of the shot becomes known, it should be possible to determine graphically, right on the chart, the pointing that should have been used. But in the rectangular system, the linear distance between the point representing the pointing used, and that representing the pointing that should have been used, will depend upon the part of the chart where the measurement is made. Since deviations are measured in linear units, it would be desirable that this distance be the same on all parts of the chart.

If it is possible to select the coordinate system in such a way that straight lines in the field of fire correspond to straight lines on the chart, while distances in the field have a fixed ratio to distances on the chart, then angles will also be preserved, and any geometrical figure in the field will have a counterpart on the chart, a similar figure on a reduced scale. This will give the added advantage that information as to the location of the target, the direction in which it is moving, and its speed of movement may be used directly in making predictions. This feature would be especially valuable in the early part of the shoot. All of these considerations point clearly to one conclusion—that the plotting should be done on the standard plotting board.

If the foregoing discussion has served its purpose, the reader is prepared to consider a kind of plotting, on the old familiar plotting board, in which a plotted point represents a pointing of the gun instead of the customary point in the field of fire. The transition from the plotting of points to the plotting of pointings is accomplished through the use of firing table data. There is a very close connection between the two kinds of plotting, so close, in fact, that the reader must be warned against confusing the two. Before proceeding further, careful attention must be given to the nature of firing-table data.

As previously mentioned, the purpose of firing-table data is to transform position data into firing data. This is another way of saying that the firing tables set up a correspondence between the position of the target and the pointing of the gun, such that to each position of the target there corresponds a single definite pointing (neglecting the possible choice between high and low-angle fire). This correspondence is reciprocal, so that to each pointing of the gun there corresponds one—and only one—position in the field of fire. In the standard system of

fire control this correspondence is used to convert the position of a point (the set forward point) into firing data; in the system under discussion it is used the other way, to convert firing data into the position of a point. If the firing-table data were exact, the transformation from the pointing that would have given a hit to the corresponding point on the plotting board would give a point showing exactly the position of the target at the instant of impact. This point would coincide with the setforward point of ordinary plotting. But it is well known that firing tables are not perfect, that the data with which they are entered are not precise, and that dispersion does exist. Therefore, the indicated position of the target, found by the correspondence of that position to the firing data that would have caused a hit, must be considered as merely the most likely position according to the best available information. The points plotted on the plotting board to correspond to the pointing that would have given hits will not necessarily preserve geometrical relations as they exist in the field of fire, but will come closer to doing this than any other general transformation of the kind.

The correspondence between pointing and position has been dwelt upon only for the purpose of showing how lines, angles, and distances in the field of fire may be transferred to the plotting board in the most advantageous manner. But in thinking of what the point on the board really means, there is a tremendous gain in simplicity if the relation between the pointing of the gun and the position of the target is completely forgotten. The correspondence between the position of a point on the board and the pointing of the piece is simple and direct, not subject to all the qualifying "ifs" that enter into the other relationship. From this simpler point of view, it is not at all difficult to see what is involved in the kind of plotting described in the next paragraph.

Consider a plotting board with all paraphernalia and equipment except the gun arm (or relocating arm) and the azimuth scale either removed or disregarded. The position of any point on this board is determined by bringing the gun arm up to that point and reading on a range scale its distance from the gun arm center, and on the azimuth circle its direction from that center. Establish the correspondence between this point and the pointing of the gun in the following way: let the reading on the azimuth scale of the board be the same as the reading on the azimuth scale of the gun, and let the reading on the range scale of the gun arm be the same as the setting on the range drum of the gun. If the gun has no range drum, let the reading on the range scale of the gun arm correspond, through the range-elevation relation for standard conditions, to the elevation set on the gun. This is not the true correspondence given by the use of all firing table data, but the errors, to be discussed in connection with a future subject, are small. Since it is nearly true that a change of any given number of yards on the range drum will cause a change of a like number of yards in

the point of impact, and a change of one degree in the azimuth of pointing will cause a change of one degree in the azimuth to the point of impact, geometrical figures in the field of fire will be reproduced with a fair degree of accuracy on the plotting board, and in most cases this is all that is required.

The points plotted on the board are of two kinds; those representing the firing data used, or intended for use, in firing the gun, and those representing the firing data that would have hit the target. Points of the first kind have not yet been given a satisfactory name. Those of the second kind are called *ballistic points*, and the trend or general path of the ballistic points is the *ballistic course*. A point of the first kind is laid down by the plotter when he arrives at a judgment as to the firing data to be used in firing. Readings taken from it give the range drum setting and the azimuth scale setting to be used in firing, and the point itself is a record of what those firing data are. When the deviation becomes known, the position of the ballistic point is found by measuring the distance of that deviation in the opposite direction from that point. Thus, if the shot has fallen over and to the left, the ballistic point will be plotted short and to the right of the point representing the firing data, because the pointing that would have given a hit would have been with a lower range drum setting and a higher setting on the azimuth scale.

This method of plotting is the one that has been developed for use in fire control with aerial observation.

Since it has been discussed in the JOURNAL several times, further discussion of it will, for the present, be limited to generalities. Experience has brought out the very important fact that range-finding is of relatively little importance. If the position of the target is known well enough to allow the battery to place a shot where it can be spotted, the resulting ballistic point on the plotting board gives a better indication of the required firing data than can be hoped for by any direct measurement by airplane observation. But if the importance of range finding has diminished, that of ascertaining the direction and speed of the target's movement has increased greatly. It takes few shots to determine the position of the ballistic course, but it takes several to determine its direction, especially in the presence of dispersion. It is therefore better to have excellent information on this latter subject, even at the expense of the former.

As the various phases of emergency fire control are considered, it will be seen that what is true for this particular emergency method is true for the others also; that the range may be guessed at and promptly corrected according to the results of spotting, but unless the rates of change in range and azimuth are well determined there will be many shots wasted. Eventually it will be seen that the distinction between emergency methods and the standard methods disappears. Then it will be clear that the principal value of accurate range finding lies in the fact that it furnishes a good measure of the rate at which the range is changing.

The Indispensable

BILL was working too hard. The office force knew it; the Old Man knew it; the junior lieutenant knew it. For that matter, Bill knew it himself. The pounds fluttered off him like leaves off a deciduous tree. Remonstrations did no good. Bill clicked off his eighteen or twenty hours a day, Sundays included. During his few hours in bed he tossed and threshed in the coils of nightmare. Bill, a seasoned field officer, was heading down a sixty per cent grade with the throttle wide open. Every one knew what would happen when he hit the bottom.

But nothing could be done with Bill. He had become an "indispensable." His Chief was sick. His Assistant Chief had been transferred. Bill reeled and staggered under his triple burden. Within a month his eyes had taken on the glassy stare of the Ancient Mariner. By the end of the second month his gills had turned the color of a sick oyster. But Bill would not ease up . . . he was indispensable.

And then one day it all ended as abruptly as it began. It was really most simple. An older officer with a flair for home-spun philosophy and psychology took Bill's case in hand. Said he:

"Bill you've decided that you are indispensable around this place. The result is you are killing yourself. You know it and we know it. Perhaps you are indispensable. But across that river is a place called Arlington where a number of one-time indispensables are held in place by granite slabs. Somehow the army is still worrying along without them."

For a moment Bill looked at the older officer in much the same manner that the celebrated conquistador first looked on the Pacific . . . "with a wild surmise." And then he picked up his hat and went home to bed.

Somewhere in this anecdote there is a moral for those who need it.

New Plan for Award of Trophy to Reserves

THE question of providing a new directive for determining the winner of the trophy awarded annually by the Coast Artillery Association to a reserve regiment has been most perplexing. During the past year it has consumed untold hours of time, effort and labor, as well as myriads of reams of paper. The problem proved to be more complicated than drafting a new tax bill. The issue is befogged by too great a number of conflicting conditions to permit of a universally satisfactory solution. Diverse views of instructors could not be reconciled. Perhaps the "mountain labored and brought forth a mouse." No claim is made that the solution is ideal but it is claimed that it represents the result of painstaking labor, careful consideration and an honest effort to please everyone; the last appears to be impossible of accomplishment. Long ago it was realized that the best to be hoped for was a plan with the least number of objectionable or controversial features.

Perhaps it will be of interest to give a brief résumé of the history of this question and to explain the painstaking efforts employed to reach a workable solution.

Shortly after the organization of the U. S. Coast Artillery Association it was decided that the Association should award annually a suitable trophy to the several components of the Army for the purpose of stimulating interest, furthering friendly competition and building morale. One of these trophies was to be awarded to a regiment of Coast Artillery Reserves. The basis of this award (as modified) was as follows:

To the regiment of the Coast Artillery Reserves that accumulated during each school year the greatest average number of credit hours per member by means of completed extension school work.

This plan worked admirably for about three years, then conditions changed and complaints developed. The principal objections raised were the following:

- a. In an effort to win the trophy pressure was applied by regimental commanders and unit instructors to induce members of the regiment to turn in the maximum amount of extension school work. This pressure applied over a period of several years soon caused some of the regiments to exhaust the prescribed courses. In other words they too soon consumed all of the food provided.
- b. Growing out of this condition and as a corollary thereto it developed that certain officers progressed in the extension school work far beyond their grade, age and experience. Lieutenants were taking the 30 and 40 series and in some cases the Command and General Staff School course. Apparently this condition had not

been contemplated in the War Department Directive and is contrary to the general plan for the training of reserve regiments. Junior officers who could not be promoted to the grade of captain for several years were taking courses intended to prepare them for the grade of lieutenant colonel or colonel.

- c. In an effort to induce officers to turn in the maximum amount of work a premium was placed on quantity at the expense of quality. Officers worked under pressure and the quality of the work suffered.
- d. It was believed by many that average performance of all members of an organization is much more important than individual performance. It sometimes happened that one or two overly energetic and enthusiastic officers would accumulate a large number of credit hours thus boosting the average of the regiment while the majority of the officers did little or nothing.

The validity of some of the objections is quite apparent. Fortunately only a comparative small number of individuals and organizations were adversely affected, but they were the ones who had been most active and had put forth special efforts to establish a record and win the trophy.

More than a year ago the Executive Council took cognizance of the complaints. As a first step in this the JOURNAL solicited and published a number of articles on the subject. These were prepared by officers who were in the best position to understand and appreciate the problem and to formulate a worthwhile solution. After considering a large number of proposals the Council realized the impossibility of finding a satisfactory solution, therefore, a decision was reached to call in some outside talent to act as special diagnosticians and to prescribe a remedy for the ailment. In February, 1935 the President of the Association appointed a board of officers consisting of:

Lt. Col. F. P. Hardaway, C.A.C.,
Lt. Col. E. B. Gray, C.A.C., and
Major Milo Brinkley, CA-Res.

to inquire into and make recommendation for establishing a new basis of award. The Council was of the opinion that any plan adopted should be based on the following assumptions:

- a. It should be applicable to all reserve units regardless of the size, location or dispersion.
- b. Average performance of all members is more important than individual performance.
- c. It must be simple in its operation and comparatively easy to obtain reliable statistical data.

d. It should not give the urban unit, where a number of officers are concentrated, any advantage over the unit whose personnel is widely scattered and unable to assemble for conferences, group schools, terrain exercises, etc.

The board of officers labored long and painstakingly over the plans that had been proposed. An effort was made to extract from each the most desirable features and incorporate these in the new plan. The report of the board was submitted early in May, 1935. Not being entirely satisfied with this the Council decided to submit the recommendations of the board to a number of unit instructors who had had long experience and association with the reserves. As was to be expected many divergent views and recommendations were received. It became apparent that the original recommendations of the board should be modified to conform to some of the objections raised by instructors. At a meeting of the Council held in September the plan, essentially as submitted, was unanimously adopted. It is reproduced here for the information and guidance of all concerned.

PLAN FOR SELECTING THE WINNER OF THE COAST ARTILLERY ASSOCIATION TROPHY AWARDED ANNUALLY TO A RESERVE REGIMENT

The following provisions will govern in determining the numerical standing of regiments of the Organized Reserve for the purpose of awarding the Association trophy. The award will be based upon the algebraic sum of three separate factors, viz.,

1. The total number of credit hours earned by means of completed extension school courses, with a maximum limit of 100 hours for any one officer.
2. Number of officers who have earned 40 or more credit hours by means of completed extension school courses during the year.
3. Number of officers who have completed the extension school courses required for a certificate of capacity for promotion to the next higher grade.

The word "officers" used herein refers to Coast Artillery officers only, either assigned or attached. In each case the denominator will be the *average monthly officer strength of the regiment from October to May inclusive*. No regiment having an officer strength of less than 20 will be eligible for the award.

The method used to determine the value under each factor and the weight to be given to each, is as follows:

Rating No. 1 Take as the numerator the number of credit hours earned by means of extension school courses completed by the officers of the regiment during the preceding year, in the courses prescribed for the Coast Artillery Corps, and (or) in other combatant branches; and the denominator as above explained. In determining

the total number of credit hours no individual will be credited with having completed more than 100 hours during the year. Give base rate of 30% to the highest quotient for any regiment and the others in proportion to their respective quotients.

Rating No. 2. Take as a numerator the number of officers who have completed 40 hours or more of extension course subjects during the year. The denominator as explained. Give a base rate of 50% to the highest quotient and the others in proportion to their respective quotients.

Rating No. 3. Take as the numerator the number of officers who have completed the extension courses required for a certificate of capacity for promotion to the next higher grade. *Certificates of capacity earned during the year will count double.* The denominator as explained. Give a base rate of 20% to the highest quotient and the rest in proportion to their respective quotients.

The foregoing will be clarified by an illustration of the plan:

Regiment	"A"	"B"	"C"
Strength (Average from Oct. to May inclusive)	100	80	110
(1) Credit hours earned by means of extension courses (not more than 100 for any one officer)	3800	4800	4400
(2) Officers completing over 40 hours	60	40	44
(3) Number of officers who have completed extension courses required for promotion to next higher grade	22	12	22
Number of officers who completed extension courses required for promotion during year	5	8	11
	27	20	33

Regiment	A		B		C	
	Quotient	Rating per cent	Quotient	Rating per cent	Quotient	Rating per cent
Rating 1	38.00	19.00	60.00	30.00	40.	20.00
Rating 2	.60	50.00	0.50	41.67	0.40	33.33
Rating 3	0.27	18.00	0.25	16.66	0.30	20.00
		87.00		88.33		73.33

Regiment "B" is the leading regiment.

The Council is of the opinion that the above plan is a great improvement over the former one; also, it desires to give this plan a fair trial over a period of several years. If it subsequently develops that a more equitable and just system can be devised the Council will be only too willing to make the necessary modifications.

NEWS AND COMMENT

ORDER OF THE ILLUSTRIOUS

CHARTER MEMBERS

Major Albert D. Chipman, C.A.C.
Major Charles I. Clark, CA-Res.
Major William F. Marquat, C.A.C.
Lt. Milton G. Mauer, C.A.N.G.
Lt. John Paulding, C.A.N.G.

NEW MEMBERS

Lt. Col. E. H. Thomson, CA-Res.
Five subscriptions
Capt. R. E. DeMerritt, C.A.C.
Eight subscriptions
Lt. W. P. Carlin, CA-Res.
Three subscriptions

Who will be the next?

For details and further information see page 307, July-August issue of the JOURNAL.

From Our Satisfied Customers

THE following have been selected at random from a number of letters which recently reached the editorial office:

My dear —

The last number of the JOURNAL has given me a great deal of pleasure. It is so well balanced and every article interesting reading. You evidently have been doing some missionary work to get some of the articles. I cannot see how any officer in active service or in the Reserve can afford to miss it.

Sincerely yours,
Major, C.A.C., Ret.

Dear Sir:

I am inclosing a check for \$3.00 for my subscription to the JOURNAL. I wish to say that I find it a very interesting and instructional book to me although I am only a Reserve officer.

Sincerely,
Lt., CA-Res.

Rough on Majors

IN the July-August issue of the JOURNAL, by the merest chance (and entirely unintentional) it so happened that two of the large type blurbs we sometimes employ to catch the eye of the headline scanners and thus trick them into reading the article, referred to majors.

One of these read:

"We can get along with mediocre colonels and a few

down right rotten majors but God help the Army that doesn't have good lieutenants and captains."

And the other:

"A captain might possess the genius of Napoleon, the moral grandeur of Lee and the driving energy of Theodore Roosevelt but not even the combination of all these qualities would suffice to promote him over the head of the most mediocre major that ever passed the buck."

It was unfortunate that both of these should have occurred in the same issue, and it might seem, on first thought, that we were prejudiced against majors; on the contrary we have the greatest amount of admiration and respect for this particular breed. This feeling may be induced by the fact that at one time we were a major (for 15 years to be exact) nor was this time so remote that we have forgotten the feeling of grandeur akin to exultation. To refer to majors as a class in such uncomplimentary terms would be nothing less than sacrilege and attached to them an undeserved and unwarranted stigma. It was, therefore, with much mental perturbation that we received several vigorous protests from our readers.

One of these protests came from a lieutenant; we admire his spirit. Most lieutenants take great delight in hearing the majors knocked. We have known some of them who, if driven to it, would join the anvil chorus. It is therefore, refreshing to find one that objects to the practice, notwithstanding its popularity. The following extract from his letter is quoted:

May I register a complaint about the last issue of the JOURNAL. I think you used too large a type in referring to "rotten majors." It also seems to me that I have been reading quite a number of remarks recently to the effect that inefficient field officers do exist in the Army. I think we ought to stop embarrassing them for a while; also, it probably raises too many doubts in the minds of our junior officers and the rank and file.

The other complaint was registered by an officer of long and distinguished service.

In the last copy of the JOURNAL I notice that you extract and show as headlines, on an article about Reserve officers, the statement that, in effect, it does not matter how poor field officers and generals are just so we have good battery officers. No doubt this was once said in jest, but I fear many officers may take it literally.

We hope that none of the majors took offense. A moment's reflection makes it obvious that none was intended. With our weather eye cast appraisingly on the list of subscribers (which we hope to increase) we would not under any circumstances publish any statement calculated to give offense even to the most recently commissioned shavetail.

"Popularize It By Publicising It"

RECENTLY our attention has been called to a means by which the presence of a reserve Coast Artillery unit in a community can be brought to the attention of the populace.

As an excellent example of what can be accomplished in the way of creating interest we are constrained to recite the worthy actions of Captain W. Earl Smith of the 513th C.A. (AA). Captain Smith, a lawyer by profession, a former aide to the Attorney General of both his own state and the Federal Government, turned from his writings on legal matters long enough to make the people of Rochester realize that they had in their midst a group of technically trained men who were exerting a considerable influence on the social and industrial life of their city.

Seizing every opportunity presented by any regimental activity that might be of possible news value, Captain Smith prepared and sent a story about it to the city newspapers. He learned that newspapers were particularly glad to obtain news items, especially those that were prepared in such a way that they could be sent along to the typesetters without rewriting or much editing. The newspaper style he acquired by a little study and practice.

Captain Smith soon found that articles covering the promotion and assignment of officers were particularly desired, especially if they contained a short historical sketch accompanied by a photograph of the officer. These articles seldom failed to find a hearty welcome, and appearing, as they did, at frequent intervals, each stating that "so and so had been promoted in the 513th Artillery, Rochester's antiaircraft artillery unit" not only served to acquaint the people of that city with the fact that they had an antiaircraft regiment, but also served to stimulate the interest of the officers in the affairs of their own unit.

Another scheme which Captain Smith adopted was the preparation and publication of a series of articles on antiaircraft artillery, pointing out the need for additional equipment and additional units to adequately defend that industrial center against enemy aircraft and how the local industries would benefit from an expansion program for additional antiaircraft artillery units, so necessary for an adequate antiair defense.

Each of the articles were accompanied by several photographs showing antiaircraft batteries and fire-control equipment. Suitable photographs were procured from the Chief Signal Officer, U. S. Army, Munitions Building, Washington, D. C. One article in particular was outstanding in that it was accompanied by a strip of pictures, the first showing a battery being attacked by airplanes. The caption for this, set in large type, read, "Watch Out Below" followed by the startling announcement, "No Guns to Defend Us." Each of the other photographs depicted a unit in action and each carried an explanation comparing the scene with points in and about Rochester that would need protection in the event of hostilities but for which there was no protection available due to lack of antiaircraft equipment.

Captain Smith's articles aroused the interest of the people of Rochester in their unit and attracted attention over a wide area. Congressman James W. Wadsworth, who, as Chairman of the Senate Military Affairs Committee, did so much for the Army, took a personal interest in the matter, as did numerous industrial magnates who are now desirous of establishing in Rochester a fully equipped regiment of Reserves, officered and manned by personnel from its technical industries.

What Captain Smith has done for his regiment (and the antiaircraft artillery) can be done for any unit by any National Guard or Reserve Officer willing to do a little extra work for the benefit of the service. It is not necessary to have the literary ability of a Liddell Hart; the facts in readable form only are necessary. Write a story, in simple understandable language, and mail copies to the "City News Editor" of each paper in your city. Give the date of release; this will give the staff opportunity to look it over and reserve a space for it on the release date. The public does not know that most of the "news" items appearing in newspapers purporting to have occurred within a few hours of publication were prepared several days in advance.

Of all the different arms of our military establishment the activities of the Coast Artillery probably are the least well known or understood by the general public. Popularize it by publicising it.

Navy Scores Again

IT is a coincidence that the United States Naval Academy at Annapolis and the *Scientific American* both celebrate their 90th anniversary in October of this year. It is, therefore, altogether fitting that the *Scientific American* should dedicate their November issue as a special Navy number. Advanced information discloses the fact that this will be a banner number with the outside cover in blue and gold (the Navy colors). The content will contain a variety of special feature articles all of which have an important bearing on both national defense and national prosperity. What might be considered the two major features will be "Fifteen Years of Naval Development" by Capt. Jonas H. Ingram and "A Forecast of World Navies" by Dr. Oscar Parks. Another article will deal with the influence the Navy exerts on progress in industry and still another article of outstanding merit discusses lucidly the use of aircraft in the Navy and effectively disposes of the old myth that aircraft have spelled the doom of surface vessels. Editorially the number discusses the necessity for a navy strong enough to carry out the peaceful policies of the United States. From advanced information it is evident that the forthcoming issue of the *Scientific American* will be of special interest and value. We recommend it to all who want to keep abreast of the times and be informed of this important phase of our national progress and security.

For More and Better Training

IN consonance with our policy of affording an opportunity to all those so inclined to express their opinions concerning improvements in Coast Artillery material, tactics or methods of training, we are very glad to reproduce a letter formulated and signed by the four reserve regimental commanders whose units were undergoing training at Fort Sheridan, Illinois, during the period July 1 to 14. This letter, addressed to the Commanding General, 7th Corps Area, is the result of much careful thought and deliberation on the part of the signers, aided and abetted by the unit instructors. It points out a condition which should receive consideration by the War Department. Naturally there will be no trouble in overcoming the old reliable objection of "insufficient funds," however, it usually is possible to find money for a worthy cause when the urge is great enough.

The letter succinctly states what the authors think about the matter of their efficiency and state of training. They fully realize the serious responsibilities which will fall to their lot in case of mobilization. Although all of them had world war experience, albeit as junior officers, and they have had very little if any opportunity since that time to undergo actual training for a command commensurate with their present grade other than in antiaircraft artillery. It is not inconceivable that in the event of mobilization they will find themselves in other Coast Artillery units where, in view of their present state of training, they would be severely handicapped if not entirely lost. It is understood that many of the field officers residing in the V, VI, VII, and VIII Corps Areas have not seen a gun, other than a 3-inch antiaircraft, since 1918. While all their efforts during the past decade have been concentrated on acquiring the fundamentals of antiaircraft tactics and technique, the numerous other parts of Coast Artillery training, organization and tactics are in the twilight zone, shrouded with mystery.

As a further consideration it is pointed out that the great majority of these officers cannot possibly attend the Command and General Staff School course for reserve officers. In the first place the number sent to this course annually is limited, and secondly, very few officers can afford to be absent from their several pursuits for a period of a quarter of a year. The two weeks' tour of active duty with unit training is insufficient to give them the ground work which all Coast Artillery officers of field grade should have. The letter as formulated by Lieutenant Colonel Floyd C. Carl; Lieutenant Colonel F. C. Tenney; Lieutenant Colonel Harold E. Pride, and Major G. G. McCaustland is as follows:

Fort Sheridan, Illinois
July 12, 1935

Subject: Training of Coast Artillery Field Officers.
To: Commanding General, Seventh Corps Area,
Omaha, Nebraska.

Assuming that the present scheme of training the reserve regiments of the Seventh Corps Area once in two years is to be continued, the commanding officer of the

regiments now in training at this station recommend that each year the Coast Artillery field officers not being trained with their regiments be ordered to active duty at a special camp for Coast Artillery field officers for instruction in the administration and tactical employment of coast defense and antiaircraft units commensurate with their grade.

It is believed this type of training is needed and is not at present available. The training with the officers of the regiment in U.T.C.'s is fundamental and should come first as it has, but that training is, after all, largely technical. The C&GS training, both extension and resident, deals with the division and higher units of command. Between these two fields of instruction now open to us is a large field in which we may be called upon to function in time of emergency but in which we have had practically no training.

While we are assigned to antiaircraft regiments and our training for the past ten years has been in that field, it is entirely possible that in case of an emergency we might be called to service in coast defenses, in which we have had a minimum of training in the past decade.

Every Coast Artillery reserve officer of field grade should have this kind of training as frequently and regularly as the training and administration of his regiment will permit. Some such training might well be required of every Coast Artillery reserve officer before consideration for attendance at C&GS school.

Such training could well be given in periods of two weeks each. This would permit many more reserve field officers to train than will ever be able to leave their civil employment for the 90-day periods now necessary to attend the C&GS school.

Maybe They Have Developed a Slice

EDITOR'S NOTE: After twelve years of inaction elaborate plans had been made to fire the 16-in. guns at Ft. Tilden during the summer training season. Out of consideration for the residents of that section the firing had to be postponed until the migratory population of Rockaway Beach hibernated for the winter. In connection with this, the following syndicated column by Westbrook Pegler appeared in the New York *World-Telegram* under date of July 29, 1935:

"ALL persons who have studied the slip-horn or the saxophone will sympathize with the United States Coast Artillery in its current dilemma regarding the two 16-inch guns at Fort Tilden, N. Y. These guns have been silent for twelve years and were to have been fired recently to determine whether they could shoot, but the test has been postponed out of consideration for the neighbors.

"A cannon has this in common with certain musical instruments, that it cannot be mastered without considerable inconvenience to persons living nearby. Necessity, that prolific mother, has produced a silent (theoretical) piano keyboard which emits only dull, fuzzy thumps for the convenience of concert artists on tour who might otherwise be tossed out of their hotels for annoying their fellow guests, free of charge, with the same music which they would have to pay money to hear under formal conditions behind the turnstiles.

"Practical trial and error is the only system by which the performer may learn to produce sweet wind out of a horn and, for this reason, trombonists, saxophonists, cornetists and clarinetists have become a sort of race apart,

persecuted, sullen, suspicious, and defensive. It will be the sincere hope of those who believe in a strong national defense that the Coast Artillery Corps will not be reduced to the same unhappy condition.

"Yet the only certain way to discover whether a big gun has developed a fadeaway, outcurve, or hop on its fast one is to try it now and again. This cannot be done without considerable noise and vibration in the immediate neighborhood of the battery, all contrary to the composure of the neighbors and the safety of the souvenir teapot which was won, at considerable expense, at the Japanese roll-the-ball fake on the boardwalk at Atlantic City when the gentleman and lady of the house were bride and groom.

"Practical firing may be reduced to a minimum and theoretical tests may serve certain purposes between times, with crews going through all the motions and a sergeant to yell, 'bang,' in a modulated voice, calculated not to wake the baby. But one shot per gun every twelve years can hardly be condemned as excessive gun-play and the warriors of the human race have become so bold that it is taking a long chance to depend on an enemy's being put to rout by a sergeant's cry of 'bang.'

"Their fellow citizens will sympathize with the residents of the region of Fort Tilden who silenced the guns for a still longer time, after twelve years, lest the noise disturb the afternoon repose of little Shirley. But there were little Shirleys ten years ago and there will always be some. In the meanwhile the Coast Artillery Corps may be permitted an honest professional curiosity as to whether their 16-inch rifles have developed a slice, hook, or fizzle.

"This puts the Coast Artillery Corps on its mettle.

"When Mussolini forbade the yodel, the native cry of the Austrians, in certain parts of the irredentist country, the wily Austrians outsmarted him by yodeling the Italian national anthem.

"The Coast Artillery might fire the guns some night and explain, when the Colonel is called before the Judge, that it was just some of Dutch Schultz's boys or J. Edgar Hoover's boys pursuing the normal tenor of their way."

School, Staff and Student Officers, C.A.C.

FOLLOWING is a roster of the instructors and student officers at the several service schools and civilian educational institutions. Counting only Coast Artillery officers the total is 97, an increase of one as compared to last year.

ARMY WAR COLLEGE

Instructors

Colonel Avery J. Cooper
Colonel John S. Pratt

Students

Lt. Col. Karl F. Baldwin
Lt. Col. F. P. Hardaway
Lt. Col. K. T. Blood
Lt. Col. R. V. Cramer
Maj. G. DeL. Carrington
Maj. W. M. Goodman
Maj. H. B. Holmes, Jr.
Maj. Willard W. Irvine
Maj. John H. Wilson

COMMAND AND GENERAL STAFF SCHOOL

1934-36 CLASS

Instructors

Lt. Col. Eugene B. Walker
Lt. Col. William R. Nichols
Lt. Col. John H. Hood
Lt. Col. James B. Crawford
Lt. Col. Frank L. Hoskins
Major Charles R. Finley
Capt. Walter L. Weible

Students

Maj. A. H. Campbell
Maj. Nelson Dingley, III
Maj. Harold C. Mabbott
Maj. John G. Murphy
Maj. Thomas R. Phillips
Capt. George M. Badger
Capt. Harry C. Barnes, Jr.
Capt. Lester DeL. Flory
Capt. Joseph E. Harrison
Capt. Hobart Hewett
Capt. Andrew P. Sullivan

1935-36 Class

Maj. Clare H. Armstrong
Maj. William D. Evans
Maj. Charles W. Higgins
Maj. S. L. McCroskey
Maj. Stanley R. Mickelsen
Maj. Webster H. Warren
Capt. Lyman L. Lemnitzer
Capt. Joe D. Moss
Capt. Rupert E. Starr
Capt. E. W. Timberlake

COAST ARTILLERY SCHOOL

1935-36 Class

Tactics

Lt. Col. W. E. Shedd, Jr.
Major F. E. Edgecomb
Major H. F. Grimm, Jr.
Major H. R. Jackson
Major R. N. Mackin, Jr.
Major E. L. Poland (Inf.)
Major O. B. Trigg, (Cav.)
Capt. F. M. Paul, (A.C.)

Capt. George A. Chester
Capt. John H. Fonvielle
Capt. Harold P. Gard
Capt. A. W. W. Hopkins
Capt. Emmor G. Martin
Capt. George W. Palmer
Capt. C. Van R. Schuyler
Capt. Carl F. Tischbein

Artillery

Lt. Col. H. H. Acheson
Major J. T. Campbell
Major J. R. Townsend
Capt. N. A. Burnell

1st Lt. Robert L. Anderson
1st Lt. James T. Barber
1st Lt. Albert S. Baron
1st Lt. Harold A. Brusher
1st Lt. E. W. Chamberlain
1st Lt. Paul Elias

Engineering

Major D. W. Hickey, Jr.
Capt. L. W. Bartlett
Capt. R. W. Crichlow, Jr.

1st Lt. William H. Francis
1st Lt. L. McI. Guyer
1st Lt. Ernest F. Heidland
1st Lt. Olaf H. Kyster, Jr.
1st Lt. Oscar J. Levin

Enlisted Specialists

Major J. H. Cochran
Major R. W. Argo
Capt. J. T. deCamp
Capt. W. L. McPherson

1st Lt. William F. McKee
1st Lt. Harlan C. Parks
1st Lt. Wayland H. Parr
1st Lt. Calvin L. Partin
1st Lt. Marion G. Pohl
1st Lt. Kai E. Rasmussen
1st Lt. Leslie G. Ross
1st Lt. Andrew Samuels, Jr.
1st Lt. John R. Seward
1st Lt. Merson L. Skinner
1st Lt. Legare K. Tarrant

*Instructors**Students*

1st Lt. Holger N. Toftoy
1st Lt. K. J. Woodbury
1st Lt. K. W. Benner
(U. S. M. C.)

Advanced Technical Course

Maj. H. Mc. Cochran, III
Capt. John H. Featherston
1st Lt. Robert L. Miller
1st Lt. W. L. McNamee

NAVAL WAR COLLEGE

Lt. Col. Richard F. Cox
Lt. Col. George R. Meyer

ARMY INDUSTRIAL COLLEGE

Lt. Col. John L. Homer

AIR CORPS TACTICAL SCHOOL

Maj. Benjamin F. Harmon Maj. Kenneth McCatty

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

(Elec. Eng. Course)

Capt. Francis B. Kane

✓ ✓ ✓

It Started in San Francisco

WE are indebted to Colonel H. E. Cloke, Commanding the Harbor Defenses of San Francisco, for bringing to our attention the fact that the first one hundred per cent score by a large caliber Coast Artillery battery was made by the 61st Company (yes, company it was at that time) Coast Artillery Corps, in 1902. This Company was stationed at Fort Baker, California. The firing took place at Battery Spencer, a 12" barbette battery (elevation 476 feet). To show that this was no accident and to prove its prowess, a short time after the first practice the 61st Company fired Battery Kirby, another 12" gun battery, and repeated the performance with a second perfect score. It would seem that this record should have been sufficient honors and that the 61st Company would have been reluctant to further tempt the great god "Luck" for fear of falling from its proud position. Nothing daunted, about six months later the Company fired Battery Wagner, a 5" rapid-fire battery and for the third consecutive time came out with a score of 100%.

If any one has knowledge of any other organization in the Coast Artillery Corps that can lay claim to an equal or greater record the JOURNAL will be glad to announce it to the world.

The officer personnel of the 61st Company at the time of this remarkable record was: Captain H. E. Cloke, First Lieutenant George P. Hawes, and First Sergeant Griffin.

✓ ✓ ✓

Bigger and Better

PERHAPS the casual reader will not observe that this issue of the JOURNAL has expanded around the girth. With unflinching regularity ever since the adoption of the

present format, in 1930, each issue has contained 80 pages. In this issue, at a considerable increase in our expense account, we are giving our readers 16 additional pages of interesting and instructive reading matter. This is an experiment. We are trying to find out if Coast Artillerymen really want more for their money; if so, now is their chance to prove it, if not, then we will be compelled to return to the old standard.

The course we will plot will be governed by the velocity of the financial wind. Whether or not this can be raised from a gentle zephyr to the proportions of a strong trade wind depends entirely upon how many members will do their bit toward swelling the volume. If 300 vigorous helpers can be added to those who have furnished the motive power for many years then we can set sail with assurances that we can safely make port.

The old maxim "In Union there is Strength" was never better exemplified than in the case of the JOURNAL. Manifestly it could not be published if compelled to depend upon a small number of officers for financial support; as the number of supporters increases the unit cost of production decreases. Naturally this reacts to the benefit of all, because with greater resources we can raise the number and improve the quality of the articles.

If our present subscribers wish to receive increased returns on their investment we urge that they bring this matter to the attention of non-subscribers. This is not much to ask. Unless there is a ready response to this appeal it will be necessary to take in the belt and admit that the subscribers do not want more food for the same money. There are only two sides to this question, each individual is either for or against. It should not be very difficult to rout a goodly number of "those against" from their intrenchments and in most cases they will surrender without an argument once they are given to understand that it is to their advantage; a little boosting and a little urging usually will turn the trick. The Association now boasts of more than 5,000 members, approximately 2,000 of these are subscribers. We are constrained to wonder what is the matter with the remaining 3,000. Apparently they are willing to accept all benefits and privileges which the Association can bestow but are not willing to lend their support in a manner that really counts.

Unfortunately this will not come to the attention of the non-subscribers unless the old guard will do a little proselyting. Oftimes a suggestion is all that is needed to bring in a new subscriber and a word dropped at the right time and place may turn the scales. We now have a number of active and interested agents (see "The Order of the Illustrious.") What we want to do is increase this number. One personal contact is worth more than 100 impersonal contacts delivered by Uncle Sam's orderly. If we can get a number of boosters the subscription list will, like a snowball rolling down hill, gain mass and momentum as it goes. Get your man and you will have the gratitude of all members of the Association and your reward will come through the medium of a bigger and better JOURNAL.

Field Training of 265th C. A., FNG.

BY MAJOR P. L. WALL, C.A., N.G.

THE 265th C.A. (HD), Florida National Guard (less one battery) commanded by Lieutenant Colonel M. R. Woodward, completed a successful field training camp at Fort Taylor, Key West, Florida, August 18. Battery "C," (3" AA) had its field training at Fort Barrancas, Fla., July 7-21, where antiaircraft facilities are available.



Lt. Col. Woodward

The regiment, formed from units located at Jacksonville, Daytona Beach, Miami, and Key West, arrived at Key West at 11:00 A.M., August 4th, and after parading through the city, escorted by the local American Legion Drum and Bugle Corps, settled down in a tent city erected by the advance detail from the Key West battery. The camp is equipped with wooden mess halls and latrines. The construction of other camp buildings and concrete tent floors are planned for the coming year.

Artillery instruction started without delay. Batteries "A" and "B" were assigned to 155 mm. guns, and "D" and "E" to 12-inch mortars. The 155 mm. position consisted mostly of coral rock, and much difficulty was met in digging recoil pits. Subcaliber practice was started following several days' drill and all ammunition was expended with creditable results.

The camp was visited by Brig. Gen. Vivian Collins, Adjutant General of Florida; Lt. Col. John O. McNamara, Asst. A. G. of Fla.; and Lt. Col. John L. Jenkins, Inf., Senior Instructor. This necessitated some advanced work in regimental ceremonies, and the regiment is duly proud of its combined parade and review ceremony, and its formal guard mounts.

Other distinguished visitors to camp were the Honorable Robert W. Gray, Secretary of State of Florida (representing Governor David Sholtz), Colonels William Moity and Pierre Robineau, of the Governor's Staff.

Target practice was held on August 13th for the 1st Bn., 155 mm. guns, two practices for each battery, morning and afternoon. The 2d Bn. fired the 12-inch mortars on August 14th, twelve rounds each. The guns used Case III, range 13,300 yards, and the mortars fired at 7,500 yards. These ranges provided a bonus in the range component of the score. A strong wind caused the water to be quite rough on the firing dates, and it was with difficulty that the splashes of the 155 mm. projectiles could be identified.

The scores made ranged from "Excellent" to "Un-

classified." The guns used Case III firing for the first time, and this regiment is the only one in the Corps Area to fire 12-in. mortars.

The following scores are reported:

Btry. "A," 155mm. guns	1st—76.6	2d—101.2
Btry. "B," 155mm. guns	1st—4.0	2d—40.5
Btry. "C," 3-in AA guns	42.88	
Btry. "D," 12-in mor.	81.8	
Btry. "E," 12-in mor.	50.5	

Local conditions at Key West, such as rough and shallow water, small towing tug and lack of regular army personnel, were a serious handicap. Tug and target could not be seen from the gun position, and special safety precautions had to be taken.

Special mention should be made on the work of the two Air Corps observers, from the Alabama National Guard, in spotting all practices at Key West. Spotting for range was nearly perfect. In case of trial shots for guns, the aerial observers were the only ones to see the splashes.

The remainder of the field training period was spent in other work, such as the Federal field inspection, critiques, close order drill competition, field and track meet, gunner's examinations, payment of troops and breaking camp.

Battery "A," Capt. P. F. McCall, won the cup for the highest score in the gun target practice, and a trophy for winning the close order drill competition. Battery "B," Capt. E. V. Garcia, won the cup for camp sanitation. Battery "D," Capt. Roger Carter, won a cup for the highest score in mortar practice, also a cup for the field and track meet. A storm had demolished the Fort Taylor rifle range, therefore a rifle competition could not be held.

A word must be said about the social activities of the camp, including the welcome and gracious hospitality of the people of Key West. Social occasions included a garden party given by Mayor and Mrs. Malone of Key West, a luncheon given by the Rotary Club, and three dances.

Special mention should be made of the regimental band, which, in addition to its military duties, provided a concert each evening, and music at all the social functions.

The regiment is appreciative of the assistance rendered by the regular army personnel at Key West Barracks, especially by its commander, Major W. W. Rhein, 13th C.A., and his assistant, Captain R. H. Krueger. This personnel was ably assisted by the regular instructors, Major R. T. Gibson, C.A.C., Sgt. Henry Bergfeld, D.E.M.L., and Sgt. J. J. Shores, Btry. "A," 13th C.A.

On Saturday evening, August 17th, the regiment departed by train for points north, ending the fifth yearly camp at Fort Taylor.

COAST ARTILLERY ACTIVITIES

Office of Chief of Coast Artillery

Chief of Coast Artillery
MAJOR GENERAL HARRY L. STEELE

Executive
COLONEL HENRY T. BURGIN

Personnel Section
LIEUT. COL. R. T. PENDLETON

Matériel and Finance Section
LIEUT. COL. O. L. SPILLER
MAJOR C. W. BUNDY
MAJOR B. L. MILBURN

Organization and Training Section
LIEUT. COL. E. E. BENNETT
LIEUT. COL. ROBERT M. PERKINS

Plans and Projects Section
COLONEL G. A. WILDRICK
LIEUT. COL. C. M. S. SKENE

Fort Monroe News Letter

BRIGADIER GENERAL JOS. P. TRACY, U. S. ARMY,
Commanding.

COLONEL RUSSELL P. REEDER, 2d C.A.
Commanding Harbor Defenses of Chesapeake Bay

COLONEL HORACE F. SPURGIN,
Commanding 1st Bn., 51st C.A.

LIEUTENANT COLONEL ROBERT C. GARRETT,
Commanding 3d Bn., 52d C.A.

LIEUTENANT COLONEL FRANK S. CLARK
Commanding 1st Bn., 2d C.A.

By Major H. W. Cochran, C.A.C.

THE annual hustle and bustle incident to summer training activities has ended and the garrison has settled down to the even tenor of its way. This summer the schedule was particularly heavy. Beginning in June and carrying through to the latter part of August the activities have included the training of the following civilian components:

R.O.T.C., over 200 officers and students.

Coast Artillery Reserve, 82 newly commissioned second lieutenants.

913th C.A. (AA) and 622d C.A., whose fifty odd officers directed the training of the C.M.T.C.

260th C. A. (AA), D. C. National Guard, 22 officers and 300 enlisted men.

The 503d C.A. (AA), 62 officers.

The 603d C.A. (Ry.), 44 officers.

The 246th C. A. (HD), Virginia National Guard, 40 officers and 540 enlisted men.

The 523d C.A. (AA), 55 officers.

The number of different units trained and the total number of trainees was far in excess of former years. In the midst of this the Harbor Defenses welcomed the cadets of the First Class, U.S.M.A., 284 strong, and in three days attempted to teach them all a "Kedet" needs know

about artillery. The grand finale was a succession of target practices fired by cadet-manned batteries, including 155-mm., 6-inch R.F., and 3-inch AA guns. The results of these practices were most astonishing to those familiar with the short time allotted to artillery training. Due to the local poliomyelitis scare the cadets were restricted to the post during their stay. Thanks to the officers, their wives, and families, this turned out to be no hardship. It is understood that "Mr. Ducrot" expressed a high regard for the Tidewater variety of females after severe attacks by the "Georgia Peach." The garrison of Fort Monroe looks forward with pleasurable anticipation to the visit of next year's class and hopes their stay will be longer and equally as pleasant.

On September 12th, fourteen newly commissioned second lieutenants reported at Fort Monroe. Inquiry disclosed the fact that they stood up well in the face of feminine intrigue, the final score being nine to five in favor of the bachelors. These fourteen new arrivals, added to the number on hand, brings the total to 29 second lieutenants; about one half of the Coast Artillery officers on duty in the Harbor Defenses. Under the direction of Lieutenant Colonel Frank S. Clark, 2d Coast Artillery, the newly commissioned lieutenants will be given a basic

course in artillery; this will last throughout the year. In addition to the purely theoretical instruction the course will consist of demonstrations and training on all types of armament, also instruction pertaining to the functions of the various staff departments. So elaborate and thorough has this course been planned that many of the present battery officers have expressed a desire to attend; in fact we suspect that a few field officers would profit by it. The course will be in addition to regular artillery work. Henceforth it cannot be truthfully said that lieutenants leave Fort Monroe not knowing breech from muzzle.

The recent law governing promotion caused 45 officers at Monroe to purchase new insignia of rank. Naturally this mass promotion called for a celebration. The party was held on August 31st; nearly 300 officers, members of their families and guests were present. Many stunts and slight of hand tricks were demonstrated by the recipients of the increased rank. Colonel Horace F. Spurgin was in charge of arrangement, and deserves much credit for the masterful way in which all details were handled.

The III Corps Area Preparatory School for West Point opened September 10, 1935, under the supervision of Major O. B. Bucher. His staff of instructors are First Lieutenant A. A. Koscielniak, Second Lieutenant P. S. Peca, Second Lieutenant H. W. Ebel, and Second Lieutenant D. B. Routh. The class consists of 35 students carefully selected from the entire enlisted personnel of the Corps Area. Frederick C. Gross, son of Lieutenant Col-

onel Felix S. Gross, C.A.C., is in the number. The subjects taught are mathematics, english and history. The schedule provides for classes in the forenoon, athletics in the afternoon, and supervised study in the evening. The course will close on the last Friday in February. The record of the Fort Monroe "Prep" is among the highest and in the opinion of those familiar with the school, there is no need for preparation elsewhere when such a school is in operation.

The beautification of Fort Monroe has progressed most satisfactorily this summer. Our local C.C.C. Company, under the command of Captain Salen, has removed numerous dead trees, beautified the lawns and gardens in addition to numerous new projects that have contributed to the beauty of Old Point Comfort. Visiting officers will find the "old home" restored to beauty far above the pre-flood days, along with better housing and living conditions.

The close of the civilian training activities marked the beginning of the annual service practices of the Harbor Defense organizations; Battery A, 51st C.A. opened the show with the GPF's, followed by Battery "B," 51st C.A., firing the same type armament. Battery "F," 52d C.A. fired the 8-inch Ry. guns and Battery "D" of the same regiment, followed with the 12-inch mortars. Battery "D," 2d C.A. closed the season with 3-inch AA firing. This battery will conduct the AA searchlight practices in October.

Corregidor News Letter

MAJOR GENERAL CHARLES E. KILBOURNE, *Commanding*

COLONEL WILLIAM S. BOWEN, C.A.C., *Executive*

59th Coast Artillery

COLONEL PAUL D. BUNKER

60th Coast Artillery (AA)

COLONEL ALLEN KIMBERLY

91st Coast Artillery (PS)

LIEUTENANT COLONEL CLAIR W. BAIRD

92d Coast Artillery (PS)

MAJOR REINOLD MELBERG

OF all the 4th of July parades held in Manila, the last before the inauguration of the Philippine Commonwealth Government was the largest and the most colorful. All the regiments in the Department participated; the troops from Fort Stotsenberg marched overland, those from Fort McKinley came by trucks while the Corregidor contingent employed the usual water route. In addition to the Regular Army troops, the Philippine Constabulary with its fine band, the University of the Philippines Cadets, and numerous patriotic and civic bodies from Manila were in the column. General Kilbourne acted as Grand Marshal. The parade was reviewed by Governor General Frank Murphy and Major General Frank Parker, Department Commander. Each regiment from Corregidor was in mass formation without distance or interval, with fixed bayonets. The 59th and the 60th were under the command of Colonel Bunker; the 91st and the 92d under the command of Colonel Baird.

With the rains has come the season for schools—post, regimental, and battalion—with gunners' instruction for

the troops. All officers at Fort Mills meet twice each week at a Harbor Defense conference. Monday is taken up with discussions of the Philippine Department map maneuver, just now getting under way. The Thursday conferences are devoted to tactical and technical discussion of the Harbor Defense problems. These conferences give all officers a broader conception of the command as a whole than they ordinarily obtain when serving in any one regiment or staff department.

The current map maneuver will have two situations as compared to three last year. The first situation simulates the attack of a zone in stabilized warfare, with three corps engaged. General Kilbourne commands the II Corps with officers of Harbor Defense headquarters forming his staff. The commanders and staffs of the three divisions of the II Corps come from the 59th, 60th, and the 91st Coast Artillery. For each situation each headquarters prepares the field orders, with all annexes and administrative orders. Even at Fort Leavenworth such complete orders are seldom assembled at one time. The



91st and 92nd Coast Artillery (P.S.) in Fourth of July Parade at Manila.

maneuver provides a refresher course in the tactics and technique of handling a division, while to the younger officers it serves as an introduction to these subjects.

The garrison at Corregidor was much pleased by the news of the promotion of General Kilbourne. This is a fitting and well merited recognition for long and distinguished service.

At the annual meeting of the Corregidor Club Colonel W. S. Bowen was elected President and Colonel C. W. Baird Vice-President. Major L. B. Douglas, Q.M.C., and Lieutenant Raymond Stone, Jr., are the remaining members of the Board of Directors. The new administration continued Captain L. W. Goeppert as Secretary, an office that he has held for some time.

It has been many years (current reports fix it at 20), since there has been a fire of any magnitude at Fort Mills. This record was broken when fire started in the quarters occupied by Lieutenants O. T. Forman and D. M. Wilson. The fire was discovered at 1:00 A.M. and the building was in flames before the fire department arrived. The occupants lost practically all their belongings; one officer had only the bottom part of his pajamas to differentiate him from a member of the nudist cult.

The first half of the Officers' Bowling League has ended with the officers of the 59th in the lead (youth will tell). They were given a good run by the 92d contingents and for the second half this team has leaped far into the lead.

For its second offering of the season the Corregidor Players presented "Is Zat So," a rollicking comedy well suited to an army audience. Not miscast, Lieutenant D. D. Martin as the Gashouse boxing manager, Lieutenant G. F. Pierce (the single lump of ivory in his stable), and Lieutenant C. G. Patterson, a socialite inebriate, carried the show from park bench to boxing ring and to the final happy-ending fadeout.

The typhoon season is on; number two typhoon signal has been raised three times. There has been plenty of rain

but the roar of the wind is the thing that makes many of the newcomers wonder if the Islands come up to the stories their friends used to spin. The answer is: "they do not." It is a trick of human nature to remember the sunny December days and the jolly parties, and to forget the damp gloom of the rainy season and the lonely evenings spent listening to the wail of the wind.



Major General Frank Parker, Department Commander, and Major General C. E. Kilbourne, Chief Marshal, reviewing the Fourth of July Parade in Manila

Hawaiian Separate Coast Artillery Brigade

News Letter

BRIGADE COMMANDER, BRIGADIER GENERAL ROBERT S. ABERNETHY
CHIEF OF STAFF, COLONEL BENJAMIN H. L. WILLIAMS, C.A.C.

S-1, LIEUTENANT COLONEL E. C. DESOBRY, A.G.D.
S-2, LIEUTENANT COLONEL H. C. DAVIS, JR., C.A.C.

S-3, MAJOR W. F. LAFRENZ, C.A.C.
S-4, LIEUTENANT COLONEL B. S. DUBOIS, C.A.C.

Harbor Defenses of Honolulu
16th C.A.

COLONEL G. L. WERTENBAKER, *Commanding*

Harbor Defenses of Pearl Harbor
15th C.A.

COLONEL EARL BISCOE, *Commanding*

Sixty-Fourth Coast Artillery
COLONEL WILLIS G. PEACE, *Commanding*

By Lieutenant John R. Lovell and Private Robert N. See

THE best news the Army in Hawaii has had in many years was the radio flash that Congress had passed General MacArthur's promotion bill and the President had signed the act immediately so that it could go into effect August 1, 1935. This act is believed to be the most constructive legislation the Army has had in many years and most of the officers feel that it clears the horizon of the future for all of us.

The entire command situation in the Army is changed almost immediately, the new captains being placed in command of organizations and the new field officers are being used to fill the many staff assignments.

Particularly noticeable is the marked change in the attitude of the junior officers at the prospect of being able to assume the responsibilities of command. The older officers, especially those who have been captains all through the World War period and ever since that time, seem quite content because they are given assignments to positions where their long experience will be of maximum benefit to all components of the Army. They are past masters in the rôle of battery commanders, know all the tricks, and will be able to help the recently promoted regular officers; also our national guard, and reserve forces.

INCREASED STRENGTH

The addition of 40,000 enlisted men to the ranks of the Regular Army will greatly benefit the personnel situation in this Brigade. The increase will permit our organizations to more efficiently and effectively carry out their assigned mission as well as to fulfill their secondary anti-aircraft assignments. The strength of the Brigade has been changed from a total of 2,949 to 4,161.

BRIGADE ATHLETICS

The 64th Coast Artillery baseball team won the Hawaiian Department 1935 championship series from the 11th Field Artillery Dragons. In the first game played at the Honolulu Stadium (a benefit game for the War Veterans) the Shafter team, representing the Honolulu Sector, won 9-7, when Paul Toma, (a pinch hitter) hit a double in the seventh inning with the bases full. The second and deciding game was won by pitcher Wally Cyr, in the thirteenth inning, a home run with two men on base.

With Jesse James, Shafter's star hurler pitching a no-hit no-run game, the 64th Coast Artillery defeated Department Staff, 3-0, August 7, to win the Honolulu Sector Army baseball title. Only 27 men faced James in the contest.

The Hawaiian Department polo team lost three matches in the Inter-Island tournament. The tournament was the best yet played in Hawaii. The California Midwicks included on their team such players as Eric Pedley and Hal Roach. Maui won three matches and the championship trophy.

Fort Kamehameha, coached by Lieutenant Vickers, Commanding Battery "C," 55th Coast Artillery, won the annual All-Service swimming meet on July 4, at the Army and Navy YMCA.

Lieutenant Robert Stunkard, considered by many to be the best Army tennis player in Hawaii, led his Luke Field net team to the top of the Sector-Navy league.

Seventeen members of the Hawaiian Department boxing team returned recently from an incursion into Northern China, where the local scrappers won 30, lost 8, and earned one draw, in 39 bouts. Opponents were selected from the garrisons in Tientsin as well as from amateur civilian clubs. Captain Thomas Henry, 27th Infantry, assisted by Lieutenant Charles W. Gettys, former Sector Athletic Officer, was in charge of the squad.

DEPARTMENT REVIEW

The troops of the Hawaiian Department were reviewed by a Congressional Committee at Schofield Barracks, on September 2. The ceremony was the most impressive ever conducted in America's largest military garrison, even surpassing the gigantic review conducted for President Roosevelt in July, 1934.

The members of the Congressional Committee expressed themselves as being delighted with the spectacle. Our guests included Representatives Tillman B. Parks, Thomas L. Blanton, Thomas S. McMillan, John S. Dockweiler, and J. Buell Snyder.

Troops participating included the Hawaiian Division, Department Special troops, the Coast Artillery Brigade, and the 18th Composite Wing.

The Coast Artillery Brigade was organized into four regiments as follows:



1. Infantry on hike in recent Department maneuvers. Note antiaircraft machine gun in background. 2. Postmaster General James A. Farley receives the honors at Fort Shafter when he calls on Department Commander Major General Hugh A. Drum. 3. Eight-inch railway gun in maneuver position. 4. New army motor transportation in action in Oahu. 5. Ambassador (to Japan) Joseph Grew pays call on General Drum. 6. Hawaiian Department boxing team returns from China.

64th C.A., Antiaircraft—Col. Willis G. Peace, Commanding.

Harbor Defense, Antiaircraft—Col. George L. Wertenbaker, Commanding.

55th C.A., 155th mm GPF's—Lt. Colonel P. H. Ottosen, Commanding.

41st C.A., 8" RR Guns—Major G. B. Robison, Commanding.

For the first time in the history of the United States Army, railway guns and their personnel passed in review. On a special track laid by army engineers, the 8-in. railway guns, with the personnel standing rigidly at attention, passed before the reviewing stand; this was a fitting climax to the most pretentious spectacle ever attempted in this Department.

Another feature of the big ceremony was the massed Coast Artillery Band of 160 pieces led by Warrant Officer George W. Dahlquist. This great band with its three acrobatic drum majors and its Bugle and Drum Corps of fifty odd pieces marched down the field to the strains of "Crash on Artillery" and drew a tremendous round of applause from the 10,000 spectators. The members of the band were garbed in regulation uniforms with white leggings, red and gold cross belts, and steel helmets ducoed a brilliant red. Technical Sergeant Stanley H. Walker did a great job with the buglers and drummers.

It is expected that a similar ceremony will be held in honor of the Secretary of War, the Honorable George H. Dern, sometime in October.

OVERS AND SHORTS

It was a pleasure to welcome Colonel Earl Biscoe, the new Commanding Officer of the Harbor Defenses of Pearl Harbor and his family. Colonel Biscoe replaces

Colonel Avery J. Cooper who returned to the mainland for duty at the Army War College.

Colonel and Mrs. B. H. L. Williams have announced the engagement of their daughter Christine to Robert Grayson of Stanford University. Grayson, as you will recall, is the All American quarterback who plays with the Stanford football team. He will be heard from later this year.

Major A. V. Rinearson, Commanding Officer of Fort DeRussy, surprised his friends when he journeyed to the mainland and joined the benedicts. Upon their return the officers and ladies of the garrison met the happy couple at the entrance to the fort, mounted them on a sound locator drawn by a tractor and took them for a tour of the post, escorted by a guard of honor with fixed bayonets. The officers insisted that the customs of the Army be properly observed even to the point of carrying the bride into her new home. Major and Mrs. Rinearson were honored by a special luncheon at the Hui-o-Wahine Pavilion, Fort DeRussy.

The Headquarters Detachment and Combat Train, and Battalion, 55th Coast Artillery, has moved from Fort Ruger to Fort DeRussy effective August 1st. Due to the large number of recruits being received, we had to break up the Brigade Casual Detachment and leave the training of the recruits to the Regimental and Harbor Defense Commanders.

Important Notice to Subscribers

We want you to receive promptly and regularly (bi-monthly) your copy of the Journal; this will depend, primarily, on whether you keep the Editorial Office, 1115 17th Street, N. W., Washington, D. C., informed of any change in your address. Postmasters are required to forward, under Sec. 769, Par. 10, Postal Laws and Regulations, second-class mail addressed to members of the U. S. Military or Naval Service when change of address is due to official orders. Regardless of whether or not this regulation is complied with, your address on our mailing list is incorrect unless you notify us of each change. Incorrect address causes an annoyance to you, an unnecessary expense to the Association, and a nuisance to the mailman.

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NOTES ON RESERVE ACTIVITIES

Planning a Tactical Problem

BY LIEUTENANT COLONEL EARL W. THOMSON, C.A. Res.

DURING the active duty training of reserve regiments, whether they be Infantry, Cavalry, Field or Coast Artillery, the emphasis has been steadily shifting from continuous drill on "squads east and west" or "take your posts" to the more interesting tactical operation of the regiment in time of war. The "active duty training period tactical problem" therefore has evolved to a place where a few notes may not be amiss on how to conduct such a problem. This may be a case of "where angels fear to tread," but one who is new to a subject can most readily point out its ambiguities and anomalies.

For several years the author has been struggling with the Extension Course of the C. and G. S. School and has advanced to the point that "60-2" is staring him in the face. He thought he was pretty good until the central marking committee got on his trail, and now 75% is a grand grade, and 88% is marvelous.

In June 1934 a group of field officers of the Reserve were attached to the Advanced Class of the Coast Artillery School, and for a week investigated and reconnoitered the purlieus of Virginia Beach and Fort Story, emplacing railroad artillery and antiaircraft guns by simulation, and then fought a war-like engagement with the 155's and 8"RR's actually firing. Under Lieutenant Colonel Acheson, Majors Grimm, Poland, and several others, from the School Staff, we learned to capitalize all the way from "TOWN TAVERN" to "CRAB ORCHARD," even dating "DIXIE BELLE" at the CAVALIER. In August 1934 the 622nd CA (HD) had duty at Fort Monroe; as Senior Instructor, the author watched Lieutenant Colonel Allison F. H. Scott, now of the 523rd CA (AA) put across a fine tactical problem in harbor defense in which squadrons of ships approached from the north and the east. Intelligence and radio flashes played a large part and allowed the troops to be alerted. If any criticism could be made on this problem it was that the regimental commander had too much to do, and the company officers entirely too little; but that is an inherent fault of any harbor defense tactical problem, except one which includes close-in defense and coordination with the Infantry.

During the past summer it was the pleasure and good fortune of the author to be Plans and Training Officer of the 523d CA (AA) at Fort Monroe, and as such he was

in charge of the tactical problem worked up as a part of the regimental training. Many of the things we found out are old stuff to the regulars, but our experiences should be of benefit to those in charge of similar problems in later camps.

In the two-weeks period there is little time to waste so that a rigid time schedule must be prepared and followed in order that the problem, and its solution, will be ready on time.

TIME SCHEDULE

Previous to Camp: Preparation and mimeographing of Tactical Exercise by Unit Instructor. This should include the general and special situations, and all the requirements. It should be within the territory contiguous to the camp so that personal reconnaissance may be made by the key men, in their own cars, in extra time; should be a regimental problem; should be one in which good maps may be secured; should be neither too simple nor too complicated.

FIRST WEEK: Tuesday: Explanation of problem and rules to P&T Officer and Regimental Commander by the Instructor. Reconnaissance of territory by above officers to find suitable position for emplacing guns and locating C.P's and O.P's.

Wednesday: Publication of temporary regimental assignments for the purposes of the tactical problem only. Announcement should be made at this time that unit commanders will be responsible for the training of the junior officers, and that each officer must make himself familiar with assignment and duties as laid down in training regulations and special texts. In the antiaircraft problem, Special Text No. 34, "Tactics and Technique for Antiaircraft Artillery," of the Army Extension Courses was our Bible.

Thursday: Meeting of the Instructor, Regimental Commander, P&T Officer, and the key men of the problem: these included the commanding officers of the battalions, and the commanding officers of the searchlight battery, gun, and one machine gun battery. At this time the P&T Officer explains the problem, what has to be done, when it has to be done, and who is going to do it. Due to the necessity of typing and mimeographing the solutions so that they may be available for all officers when the

problem is "played," a time schedule is announced. All reconnaissance must actually be made by the officers concerned; all solutions must be checked by the P&T Officer and the Instructor, particularly as regards time-meshing and actions. Orders must be in army parlance.

Friday: P.M.: Initial Draft of Regimental Commander's orders and actions ready and given to Bn. Comdrs.

Saturday: P.M.: Initial Draft of Bn. Comdr's orders and actions finished, checked as to time and completeness by P&T Officer, and given to Btry. Comdrs.

SECOND WEEK: Sunday: P.M.: Initial Draft of Btry. Comdr's orders and actions finished, check by P&T Officer.

Monday: P.M.: Final drafts of all orders typed and ready for mimeographing. Checked by Instructor. A time schedule for each key officer for the day of the problem should be prepared by P&T Officer to see that actions are logical and chronologically correct.

Tuesday: See appendix III (omitted)

Wednesday: Preparation by P&T Officer of rules for playing the problem; time schedule showing actually what is to happen; where lunch will be served; special duties for any officers, i.e. Surgeon, Asst. P&T Officer, Traffic Officer; arrangements with civilian population; regular duties of company and junior officers other than key men, i.e., preparation of their own time-and-action schedule, preparation of maps showing their positions and dispositions, preparation of intelligence, supply, communications, munitions, reconnaissance, executive and platoon commanders' report. Each officer should know beforehand actually what is going to be required of him on the day of the problem as regards reports, maps, and paperwork.

Thursday: On this day the regiment will play out the problem, each man doing the job that would be required in case of moving into position and preparing for action. Each man must have something to do, and something to turn in. As a matter of future filing, all reports and maps were called for on standard typewriter paper, in pencil or ink.

TIME SCHEDULE FOR DAY OF PROBLEM

7:45-8:10 A.M.: Explanation of problem, duties, and reports required by the P&T Officer, who is in charge of the whole day's instruction. Assignment to cars. Change in duties as previously announced. Distribution of problems (and solutions to key men only). Reading of rules for the game.

8:15 A.M.: Reading and explanation of the Regimental Commander's orders in the presence of the Bn. Comdrs. and Regt. Staff.

8:30 A.M.: Preliminary orders of Bn. Comdrs. to their Btry. Comdrs. and Staff at Bn. Hq. All then leave on reconnaissance.

8:45 A.M.: Preliminary orders of searchlight Btry. Comdr.

9:30 A.M.: Movement of Regt. and Bn. Hq. to forward positions.

10:00 A.M.: Final oral orders of Gun Bn. Comdr. to his Btry. Comdrs. at the advanced Bn. Hq.

10:15 A.M.: Final oral orders of Machine Gun Bn. Comdr. to his Btry. Comdrs. at the advanced Bn. Hq.

10:20 A.M.: Oral orders of gun Btry. Comdrs. to their company officers, at the gun position, or at position the troops are met on the road.

10:45 A.M.: Oral orders of machine gun Btry. Comdrs. to their Plat. Comdrs. and Staff.

11:30 A.M.: Report of searchlight Btry. Comdr. to Gun Bn. Comdr. and Regt. Hq. as to searchlight dispositions, and reading of his orders to his Plat. Comdrs.

11:45 A.M.: Intelligence, communications and supply reports to Regt. Hq.

12:00 M.: Btrys. in position, "Ready for Action."

12:30 P.M.: Lunch at some central position.

1:35-1:55 P.M.: Visit to a searchlight position, explanation of Btry. or Plat. Comdr. as to his dispositions, and the reasons therefore.

2:05-2:25 P.M.: Visit to the position of a gun btry., explanation of Btry. Comdr. as to his dispositions, reasons for gun positions, machine-gun positions for protecting battery, director, bivouac area, kitchen, C.P. and O.P.

2:35-2:45 P.M.: Visit to the Regt. O.P.; reasons for its locations; explanation of communication and intelligence nets by schematic diagram.

2:55-3:20 P.M.: Visit to a machine-gun position, explanation by Btry. Comdr. as to his dispositions for the whole battery, command and observation posts; and by the Plat. Comdr. as to where he placed his guns, ammunition supply and camouflage.

3:30 P.M.: Return to Hq. Distribution of solutions to all officers not having received them. Collection of all reports and maps by Btry., Bn., and Regt. Comdrs. from subalterns, by P&T Officer.

Friday: 8:00-10:00 A.M.: CRITIQUE. The P&T Officer should preside. All key officers should be called on in turn for the reasons for their solutions, (1) as to how their actual actions fitted the solution, (2) as to faults found and the reasons for changing. Operations maps should be displayed; sample intelligence reports read; and sketch maps of battery and platoon positions shown. With a real problem the questions will come thick and fast, and interest will be maintained because everyone has actually played his part, both on the map and on the terrain. After everyone has had his say (and the P&T Officer should feel free to "pipe down" anyone who becomes argumentative or verbose), the Instructor picks up all the threads in a "Critique on the Critique." A good Instructor should leave everyone with a peaceful feeling, no matter how critical has been the critique.

From the above it seems that the P&T Officer is in for

a busy two weeks, and such is the case, but the glow that comes with the completion of a well worked out tactical problem repays him for the nights he has omitted social reconnaissance in order to keep track of the progress of all the key men. From Tuesday of the first week of camp until Friday noon of the second week the P&T'er has tactical-problem-on-his-mind, together with the multitudinous duties of his position. If the Regt. Comdr., Ex., and Adj. are helpful, the key men know how to write orders and report actions and the Instructor is not too critical, he may find time even to go for a boat ride or attend the regimental dance.

NOTES

This particular P&T'er made the following notes which may be of help to others:

All traffic regulations must be obeyed. Cars representing troops moving into position must move at 15 m. p.h.

Cars must be provided for the following:

Regt. Comdr. and Hq.: 3 cars.

P&T Officer and Unit Instructor: 1 car.

Each Bn. Comdr. and Hq.: 3 cars.

Btrys. C. D. F. G. H.: 2 cars each.

In each battery, one car, which is that of the battery executive, must represent troops, and await orders at headquarters or various crossroads as called for in the orders. For the afternoon program each car must be numbered, convoy orders must be obeyed; the traffic officer to be in charge of the movement with the P&T car No. 1 in line.

Each regimental, battalion and battery staff officer must prepare a copy of his actions, reports made, and time schedule to be passed in to P&T Officer in pencil.

Each Btry. Comdr. must prepare a report of his actions, orders given, and a sketch showing disposition of platoons and battery components.

Each Plat. Comdr. must prepare a pencil copy of his actions together with a sketch of his gun dispositions.

Each officer must have something to do, must do it on schedule, must report on and be prepared to justify his actions.

Reconnaissance must actually be made on the day of the problem at the time designated, and where the battery is assigned.

First-aid station, under charge of a hospital corpsman, should be established at Regt. Hq. Chiggers, cuts and dog-bites require treatment.

The Regt. Comdr. and his Ex. Officer should arrange to keep track of the 1st Bn., to act as referee and to prepare for critique. The Instructor and S-3 should go with the 2nd Bn. Comdr. part of the time so that his actions may be criticized later. These dispositions are merely for the purposes of the problem.

All orders must be in military language, and go via the chain of command. Questions as to rules should be settled by S-3.

The solution of a problem similar to the one assigned

the 523rd CA (AA) requires much study and the co-operation of all the key-men, during a time when each is loaded down with many other duties connected with the camp; also the maintenance of a rigid schedule, hell, rain, and high water not interfering. Reconnaissance and writing of orders must be done only in recreation periods and over the first week-end. That the 523rd was successful in the problem was due to the understanding and military knowledge of the Instructor, Lt. Col. Edward Turner, CAC; to the calm, collected manner of the Regimental Commander, Col. Carl Deakin; to the thorough knowledge gained in extension courses by the Battalion Commanders, Capt Armand Hochle, and Capt. Paul Langguth; and to the study of the training regulations and their application by the Battery Commanders, Capts. Peter Stevenson and James Craft and 1st Lt. Willson.

The proper solution of any tactical problem requires this close coöperation between the members of the regimental team. The P&T Officer can get nowhere without this coöperation, he cannot carry the load alone. The credit for the happy solution of the 523d tactical exercise belongs to all, from the Instructor down to the embryo 2d Lieutenant who travelled at 15 m.p.h. simulating troops moving into position.

EDITOR'S NOTE: It is regretted that space does not permit publishing appendices and annexes. These would go far toward completing the picture and furnish a source of valuable information of great assistance to anyone confronted with the necessity of preparing a similar problem. The success of a tactical exercise depends, to a very great extent, upon the care and thoroughness with which the problem is drawn. A listing of the annexes will show the magnitude of the preliminary work and the mass of detail that must be worked out:

- a. General and special situations.
- b. Orders actually issued by Regt., Bn., and Btry. Comdrs.
- c. Informal reports of all Regt. and Bn. Staff officers as to their duties and actions on the day of the problem.
- d. A detailed time table for key officers accounting for their actions and duties on the day of the problem.
- e. Orders as actually issued by each.

1 1 1

974th C.A. (AA) Endorses New System

By MAJOR HENRY A. SCHUMACHER, CA-Res.

MAJOR General Johnson Hagood, Commanding the VIII Corps Area, has led the way in providing a more interesting and efficient system of training for Reserve officers.

The methods previously employed have not always produced the most beneficial results. Too often it happens that the Regular Army officer adopted the same attitude toward the Reserve officer that one sometimes adopts towards an uninvited distant relative who comes to pay a visit. In both cases the host is glad to see the guest, but he or she interferes with the family routine and takes up much time when there is work to be done, therefore the best thing to do is to get the visit over as gracefully as possible. To many Reservists it seemed that troops and matériel were to be looked at and handled gingerly but not used as if he were the possessor. Undoubtedly this was brought about because we had not

progressed far enough to know how to use the tools efficiently.

Instructions from Corps Area Headquarters prescribed that Reserve officers would actually exercise command of the units for the entire training period; except in matters of finance and post administration.

The regular battery commanders were assigned as assistants to the Instructor. They were directed to exercise command only when necessary to prevent injury to personnel or matériel.

The Commanding Officer and the officers of the 69th C.A. (AA) entered wholeheartedly into the spirit of the scheme; in a large measure this was responsible for a most interesting and successful training period.

Twenty-two officers of the 974th C.A. (AA) had the good fortune to experience this method of training and are enthusiastic and unanimous in their praise. They are hoping that they may have the pleasure of repeating the experience next year.

Headquarters was established and officers were assigned to the staff and the several batteries, then the usual mimeograph barrage came down without delay. Orders were issued for all activities, instructions were given to be ready for target practice by the end of the week and arrangements were made for planes to tow targets and fly for the searchlight practice.

Within two days the gun battery, commanded by 1st Lt. John Parmakin, fired its record practice. Owing to a shortage of ammunition only one gun was fired. The practice was fired over four courses; three hits were obtained on one course. The following tabulation tells the story:

Average slant range	4800-5400 yds.
Number of shots	55
Number of hits	8
Hits per gun per minute	1.98
Number holes in target	10
Score	77.2

The machine gun battery fired five courses, one of which was coming in. The slant ranges averaged between 800-1200 yards and 6.6 hits per gun per minute were registered, resulting in a score of 46.69.

The searchlight battery went into position near the Houston municipal airport with four 60" Sperry lights. Despite the lack of time for sufficient training, combined with wire trouble, a score of 60.7 was made.

The high spot in the second week's training was a field problem involving a convoy order, field order, map and ground reconnaissance of positions for entire regiment, the occupation of positions with such equipment as the regiment possessed, and the establishment of an over-night camp.

The convoy consisting of 36 vehicles cleared Fort Crockett at 1:30 P.M. and proceeded to Houston, a distance of forty miles. The advance party handled by Reserve officers had laid out the camp. Trucks went into park without delay. Kitchens were set up, tents pitched and camp was established in a short time. The recon-

naissance details verified the positions as selected from the map. Positions were occupied by the batteries and everything was in readiness for the night practice, with gun and machine guns in position. Searchlights were very successful in picking up the plane and an interesting instructive problem resulted. Next morning a critique was held.

By a fortunate circumstance it happened that Fort Crockett was receiving its allotment of recruits, 250 in number. These recruits were in various stages of training and the officers had an excellent opportunity to gain some first hand information as to the troubles they would encounter in the event of mobilization. Responsibility for the training of these recruits was placed on Reserve officers.

The value of close order drill is recognized and a program to get the most out of it was adopted. To provide instruction in the handling of dismounted troops, especially in close order drill, ceremonies and etc., a series of parades and reviews was held. All men were turned out, even recruits who had just received their uniforms. The final review showed splendid progress on the part of both men and officers.

Social activities were given some attention, in fact more than is accorded in most camps. So often this feature of a training period is overlooked and an opportunity of further developing the *esprit de corps* is lost. One dance was held in the early part of the period, followed by several other social functions and a final dance at the end of the training period.

The hospitality of Lieut. Col. Donovan and the entire command was greatly enjoyed and contributed in a marked degree to the success of the camp.

The 974th is eagerly looking forward to next year's training period at Fort Crockett under the same system.

* * *

Reflections of a Reserve Officer

BY LIEUTENANT ALBERT MARSHALL, C.A.-Res.

OFFICERS of the 958th, 955th, 507th, and 960th C.A. (AA) Regiments completed their two-week Unit Training Camp at Fort Sheridan, Illinois, on July 14th. Individual officers from the 537th, 527th, 515th, 538th C.A. (AA) Regiments and the 7th Corps Area Service Command also attended the camp and were attached to the units mentioned. As the last man wound through the pay-off tent on that sunny Saturday morning, the bustling, business-like atmosphere of the camp gave way to a disorganized scurry as men packed their scattered belongings in cars and departed in clouds of dust, or stood around in small groups, pausing a few minutes to discuss the events of the past fortnight before they departed for home.

To the officials at Fort Sheridan another group had merely come and gone. The following week, new faces would appear on the company street, and then the hustle and bustle would start all over again. But to the officers of



Chemical Warfare Demonstration at Fort Sheridan

our antiaircraft regiments, an experience had come, one that would stay with them for many months and recall again and again a certain feeling of sober responsibility in that serious business of defending our country.

To the average reserve officer, the two weeks' training period is the natural culmination of long weeks of study and discussion periods. He reads about the weapons, their methods of use and the problems of antiaircraft gunnery from textbooks illuminated with minute descriptions of matériel that can hardly be described as inspiring. Then suddenly he finds himself face to face with these things. He feels keenly interested and absorbed in it all, and wants to "get going."

To this enthusiastic reservist, the necessary delays attendant upon getting "organized" were somewhat annoying. However, it is realized that this fourteen-day training period is in effect preparation for a possible mobilization; in this event training in organization and administration are absolutely necessary.



Staff of the 955th Coast Artillery (AA), Fort Sheridan, Ill.
LEFT TO RIGHT—Capt. Ira Kelly, S-4; Lt. H. S. Peyton, Att. PGT.; Capt. Ralph Farrar, S-3; Lt. Col. F. C. Tenney, C.O.; Maj. J. E. Carnegie, Ex. Off.; Lt. Merritt Hughes, Com. Off.; Lt. Andrew McGiffort, S-1.

The first day of the training period was used for travel to camp and physical examination of the early arrivals. The morning of the second day was given over to the completion of the physical examinations, and to addresses of welcome by Brigadier General Dana T. Merrill, Commanding General of Fort Sheridan, and Lieutenant Colonel Robert P. Glassburn, C.A.C., our camp executive. The afternoon of this day was set aside for the use of the regimental commanders in organizing their regiments and attending to the other administrative details. In the evening a searchlight demonstration was staged by the 61st C.A. (AA).

On July 3d the regular schedule of intensive instruction began with a bang and continued except for Sundays and holidays, until 4:00 P.M., Friday, July 12th.

The last two days we set aside for closing camp, receiving pay, rendition of reports and travel home.

MORE THAN KNOWLEDGE

Just as the value of a college education is far from limited to learning the contents of books, so a two-week army training period should not be evaluated entirely by the actual knowledge imparted. One learns a lot about the way things are done and how officers are expected to conduct themselves through association. Then, too, that adhesive spirit that binds any organization together is strengthened and augmented by rubbing elbows with one's fellow officers. One of the evidences of the great advance in Reserve training was the ease and speed with which the attached officers were absorbed into and became a part of the regiments to which they were attached.

The most interesting training was on the three-inch guns. Here the antiaircraft officer becomes acquainted with the principal weapon he will have to use. He learns to have confidence in the data computer, the B.C. telescope and the slim graceful AA gun. When a burst from one of the shells fired envelopes the target towed by a friendly (and we suspect nervous) airplane pilot, he feels a genuine pride in his outfit and in his arm of the service.

Perhaps the one thing that leaves on the mind the most lasting impression is this: yesterday this group was scattered from the Ozarks to the Canadian border, each officer living apart from his fellows, struggling at some job peculiarly and personally his own. To him the regiment exists only on paper. Uncle Sam's mailman is an impersonal orderly.

Today we are an organization. Men in uniform spring to their feet in answer to the call, "fall in." Jones and Smith, neither of whom I have ever seen before, are shoulder to shoulder with me, a part of the same outfit, bent on the same thing, glad to have a part in that great plan called National Defense.

Tomorrow we are again merely names on the roster. But those two weeks have not been forgotten. We know that our regiment is a flesh and blood organization, a unit that will respond to a man when the call comes.

970th C.A. (AA) Employs New Training

By LIEUTENANT JEFF BARNETTE, C.A.-Res.

ON July 13 the 970th C.A. (AA) entered upon 14 days' active duty training under a new scheme inaugurated by Major General Johnson Hagood, commanding the Third Army and the VIII Corps Area. The regiment was the first in that Corps Area to try out the new plan. Heretofore when a reserve regiment had been ordered to active duty the personnel usually was made up of officers from several different regiments and branch assignments. In this case all officers undergoing training (22 in number) were from the 970th and were placed on duty in accordance with their regular regimental assignments. As soon as the officers arrived at Ft. Crockett they assumed entire command of the 69th C.A. (AA), the regular army regiment stationed at that post, with the exception of the routine administration at post headquarters, the quartermaster detachment, and the finance detachment.

Only four of the regular officers, the battery commanders, were assigned to duty with the 970th. During the period of the training they acted as assistants to the battery commanders of the 970th. The first step was the taking over of all property on memorandum receipt by the officers of the 970th. It then developed that almost a third of the regular enlisted personnel was made up of recruits. This made it necessary to prepare dual schedules.

In accordance with the policy laid down by the Corps Area Commander the recruits were at once given preliminary instruction in the handling of the pistol and in pistol practice. This particular type of training was interesting and beneficial to the reserve officer because in the event of mobilization practically the entire personnel would consist of recruits. Prior to arrival at camp each battery commander had prepared a training schedule for the first week. The training schedules for the second week were ready for the commanding officer's approval at the end of the fifth day of active duty.

In general the training was divided into two phases:

- (a) The first consisting of the training of the individual soldier and the various units.
- (b) The second devoted to the perfection of the training given during the first phase and to technical training of the various sections.
- (c) General training:
 - (1) Close order drill and ceremonies, preliminary artillery training, orientation and inspection group.
 - (2) Close order drill and ceremonies, artillery training, trial shot problems and target practice, field problems, convoy inspection.
- (d) In general the following breakdown of training time per week was observed:

Close order drill, ceremonies, guard duty	6 hr.
Artillery drill, preparation for conduct of service practice	19 hr.
Tactical exercises, convoys, field service	7 hr.
Administration	6 hr.

One of the highlights of the training period was an



Staff conference preceding officers' call. LEFT TO RIGHT—Major Robert A. Phillips, 9th Corps Area unit instructor; Col. J. A. Rossiter, Commanding Officer 970th C.A.; Lt. Col. Sam Lackey, Jr., Executive Officer; Lt. Jeff Barnette, Adjutant 970th C.A.

overnight convoy trip from Fort Crockett to Houston, Texas, a distance of fifty miles. The convoy left Fort Crockett at 1:00 P.M., and pitched tents in Houston at 4:30, where it remained for the night, returning to Fort Crockett early the next morning. During the evening a band concert preceded searchlight demonstrations. This convoy was made for training purposes and in honor of the 970th regiment, which is Houston's own Reserve regiment, and in the interest of publicity. Thousands of people visited the Camp during the band concert and witnessed the aerial demonstrations.

In commenting on this type of training the Commanding Officer, Colonel Rossiter, wrote General Hagood in part as follows:

Having just completed a tour of active duty at Fort Crockett, it is as Commanding Officer of the 970th Coast Artillery (AA) Regiment I desire to make a report on the new system of training as compared with the old system. Under the old system of group, or conference training, an officer had little personal responsibility, and if he was prompt and attentive to duty at conferences there was little possibility of anything but at least a satisfactory report on his efficiency record. There was almost no opportunity of observing many of the points on which this classification had to be based. On the other hand, there was little chance for any of the superior characteristics to be developed and brought to the attention of the training officers.

Under the new system an officer is given definite responsibility and his manner of handling this responsibility is immediately brought out, either to his credit or otherwise. Under these conditions the qualities of a good officer are brought out and he is given an opportunity to make a showing, while a poor officer is just out of luck. This was brought out very decidedly in the 970th training, as most of the officers were reported about on a par with previous camps. This year the good officers stood out like a monument, while the poorer ones, of which there were few, stood out like a sore thumb.

At the conclusion of the two-week period I asked each battery commander and staff officer to make a report on his

ideas of the new type of training, and without exception the opinion was expressed that there was no comparison between the two. In the new type it was possible to obtain a fair and definite estimate of the qualities of each officer and find out where he was best suited to function.

In the reports mentioned above it was the unanimous opinion that the new type of training should be continued, and it is my opinion that it is the only type of training that is worth spending money on, as in an emergency a commanding officer knows just what to do with each officer and can immediately place him where he can function at once.

The entire officer personnel of the 970th wish to pay tribute to the splendid coöperation received from the regular officers stationed at Fort Crockett.

Second Corps Area Camp News

By CAPTAIN VINCENT A. LANE, CA-Res.

THIRTEEN officers of the 602nd C.A. (Ry) and 10 officers of the 607th C.A. (TD) were ordered to Fort Hancock, N. J., for active duty for the period July 1-14, 1935. For both administrative and training purposes the two regiments functioned as one unit with Lieutenant Colonel Charles Houston, 602nd C.A. Commanding; Major A. B. Campfield, 607th C.A. Plans and Training Officer; Captain Vincent A. Lane, 607th C.A., Adjutant.

The 8" railway gun with standard horizontal base fire control system was used for artillery instruction. Each officer fired a sub-caliber practice. The record practices were conducted by Captain Numan A. Martell, 602nd C.A., and Captain Arthur L. Selby, 607th C.A. One of the shots hit the target but due to all shots being so close it was impossible to determine which Battery Com-

mander should receive the credit. The gun crew claimed that a "custom of the service" called for a keg of beer if the target is hit. This old Spanish custom was observed, perhaps the keg was only partly full but we will blame that on "leakage."

During the training period Colonel Azel Ames, 602nd C.A., visited Fort Hancock and gave instruction in the care and maintenance of engines, car and track matériel; this was one of the high lights of the Camp. A railroad man all his life, Colonel Ames is well equipped to discourse on any kind of railway matériel and can hold a class entranced by a recital of experiences gleaned from his work. Due to the demands of his public office, to wit, Executive Deputy Commissioner of Sanitation of the City of New York, Colonel R. S. Allyn, 607th C.A., spent but one day at Fort Hancock. The visits of these regimental commanders were an inspiration to all officers at camp.

All officers participated in close order drill each morning; also, there was a map problem, (for one inclement day) pistol and antiaircraft machine gun practice and the usual evening parades and reviews.

The instruction was under the supervision of Major William M. Cravens, C.A.C. (D.O.L.). At the close of camp each officer felt that this tour of duty, due to Major Cravens' untiring efforts, was one of the most interesting and instructive periods of active duty ever participated in by either regiment.

Two formal dances were held; the first given by the officers of the Post to the Reserve Officers and the second was a return engagement.

Fort Hancock has long been noted for its hospitality. Colonel P. M. Kessler, Post Commander, and Captain Kenneth C. Bonney, Adjutant, made each Reserve Officer feel that he was a welcome visitor.



Plenty of action

COAST ARTILLERY BOARD NOTES

Any individual, whether or not he is a member of the service, is invited to submit constructive suggestions relating to problems under study by the Coast Artillery Board, or to present any new problems that properly may be considered by the Board. Communications should be addressed to the President, Coast Artillery Board, Fort Monroe, Virginia.

THE COAST ARTILLERY BOARD

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SECTION I

Projects Completed Since Last Issue of the Journal

PROJECT NO. 1036—TRAINING MEMORANDUM. INSTRUCTIONS FOR COAST ARTILLERY TARGET PRACTICES, CALENDAR YEAR 1936.—This Memorandum has been submitted in draft form to the Chief of Coast Artillery. As submitted, it differs very slightly from the Memorandum as issued for the previous target practice year. In preparing this Memorandum the Board was besieged by those who recommended "simplicity" in firing and scoring. The besiegers lamented depriving the battery commander of initiative, and regretted confining him to such narrow limits in firing his practices. The Board is of the opinion that most of the criticisms were destructive rather than constructive, and few of those who protested had any concrete suggestions to make.

The Board holds that, for gunnery in general, the Chief of Coast Artillery is in a better position to prescribe the manner and methods of firing than is any other person. Changes in methods are devised to develop those particular features which have been shown by target practice reports to be in need of development. An easy way for the Chief of Coast Artillery to accomplish this is to put a term, or factor, in the scoring formula that will place greater emphasis where it is most required. For example, greater stress may be placed upon rapidity of fire, quick adjustment, or absence of dispersion, or any combination of these and other features. Coast Artillery target practice is an expensive operation, and the Government is entitled to a full return for each dollar thus expended. The only net return from target practice is knowledge.

Of course, the above sets forth only the views of the Board. As issued, the Memorandum may differ materially from the draft submitted.

PROJECT NO. 1034—COAST ARTILLERY SIGNAL LAMP EQUIPMENT.—As stated in a previous issue of the JOURNAL, this project consisted primarily of a study of

signal lamps. One of the principal questions was whether or not signal lamps are really needed. The Board concluded that the signal lamp constitutes a necessary article of issue, notwithstanding recent developments in short-wave radio and other means of communication. The use of rocket signals, and of the Very pistol, are excluded by recent instructions based on international usage; in general, a rocket of any color or design means to the master of a commercial vessel that the firer of the rocket is in danger, and that an emergency exists: deprived of these means, it is probable that in the future more use will be found for signal lamps than in the past.

The Board recommended the retention of the signal lamp, with a view to replacing interrupted telephone communication for all situations, and to provide signals for safety purposes in seacoast target practices. Certain changes in design of the present signal lamp were recommended.

SECTION II

Projects Under Consideration

PROJECT NO. 953—RADIO-CONTROLLED HIGH-SPEED TARGET.—As stated in the previous issue of the JOURNAL, it is hoped that a trial on the water can be carried out during the month of September. When it comes to installing on the boat the gear that will meet the requirements of a target, it has been found that there are few commercial products that exactly fit the case. This means building from the ground up, and with the limited amount of technical personnel available for such highly refined work, progress is slow. Furthermore, other work to which higher priority had been assigned took the technicians away from this target project for months at a time.

PROJECT NO. 964—RUBBER-JACKETED SUBMARINE MINE CABLE.—This test has been completed and the report thereon is practically finished; it is being held to tie it in with other reports on mine equipment. As previously stated, the rubber-jacketed cable has proved a great improvement over any other kind of cable.

PROJECT NO. 990—TEST OF DULUX, NON-OXITE AND OTHER PAINTS.—This test still continues on four anti-aircraft guns and carriages. The season of hot weather for this year has not passed. Before finally reporting on this project, the Board desires to note the full effects of the intense summer sun.

PROJECT NO. 1017—STEREOSCOPIC TRAINER T5; AND PROJECT NO. 1018—OPHTHALMIC TELEBINOCULARS.—The test of these instruments has been long and, in the opinion of the Board, quite thorough. The following classes of personnel have been tested on these instruments; namely, officers and enlisted men of the Regular Army; officers and enlisted men of the National Guard; Reserve officers; R.O.T.C. students; and members of the CMTC. Medical officers, specialists in eye work, have assisted the Board in the test. It is believed that all tests, as such, are complete, and the Board is now compiling all available information with a view to making a conclusive report.

PROJECT NO. 1023—PORTABLE KITCHEN, GASOLINE-BURNING.—This equipment was received at Fort Monroe after all opportunity for field test by local units at this period of the year had passed. The kitchen was turned over to a unit of the District of Columbia National Guard for a road test, and is now being used by an organization at Langley Field. Its operation is being observed, and preliminary reports have been received. Nothing definite can be reported as yet.

PROJECT NO. 1025—SHIRTS, FLANNEL, OLIVE DRAB.—The one-year test is still in progress, but unofficial reports indicate that there is some shrinkage in the sizes of the shirts under test.

PROJECT NO. 1027—TABLES, MESS.—Nothing to report.

PROJECT NO. 1031—DIAPHRAGM GAS MASK, E3R139.—Part one of the report on this mask has been completed. Part two of the test awaits receipt of Signal Corps telephone equipment.

PROJECT NO. 1033—FUZE SETTERS, M5, M2A1 AND T8.—After much work, in which the Ordnance personnel rendered indispensable assistance, it is thought that the defects in the M5 have been removed. There still seems to be considerable doubt as to the practicability of the T8. The tests have been completed, and it is thought that the report of the Board will conform to the statements made above.

PROJECT NO. 1037—OPTICAL GAS MASK E6R40-E7R15-E4R11.—A partial, hurried report has been made on this mask. It is felt that a conclusive report cannot be rendered until it is tried out with additional equipment yet to be received by the Board.

PROJECT NO. 1038—STORAGE OF RUBBER-JACKETED SUBMARINE MINE CABLE.—As stated above (Project No. 964), this cable seems to be very satisfactory. It is expensive, and every effort is being made to find the proper method of storing it to minimize deterioration.

PROJECT NO. 1039—DATA TRANSMISSION SYSTEM T-11.—The Chief of Coast Artillery has approved the pro-

gram for the test of this system. It is to be tested at Battery Montgomery at Fort Monroe, and at Battery Mills at Fort Hancock, N. J. The installation at Fort Monroe has not been completed.

PROJECT NO. 1041—CONVOY ILLUMINATION.—This involves tests of material that will assist a driver, in a convoy of trucks or other vehicles, to avoid a collision with the vehicle in front of him when the convoy is running without lights. Many schemes have been suggested, and the Board has made up a lamp that, in its opinion, is worthy of further test. The report will be submitted at an early date.

PROJECT NO. 1042—MOTORCYCLE REQUIREMENTS—COAST ARTILLERY CORPS.—This study requires an answer to the question as to whether or not to retain the motorcycle. All of us are more or less painfully familiar with the deficiencies and undesirable qualities of the motorcycle, but since the receipt of the directive on this subject the Board has not yet had time to complete the study.

PROJECT NO. 1044—MACHINE GUNS, M1, CALIBER .22.—This matériel has just been received by the Board. The previous report, based solely on theoretical considerations, was submitted, and such report recommended adversely as to including this gun in Coast Artillery equipment. It is unsafe to prophesy, but it is believed that an actual test of the equipment will not change the original report.

SECTION III

Miscellaneous

The following subjects selected from the correspondence of the Coast Artillery Board may be of more or less interest to certain readers of the JOURNAL.

PRINTER'S INK.—Good printer's ink seems to be the ideal substance for identifying the perforations of anti-aircraft machine gun bullets. Slight variations in the formula by which the ink is mixed makes considerable differences in results when used for the purpose intended. New samples of the specifications from the public printer have just been received.

RADIO-CONTROLLED AERIAL TARGET.—One finds in the public press of today frequently reference to the radio-controlled aerial target. What is needed is an inexpensive target which can be so controlled as to follow courses similar to those which a hostile plane would be likely to pursue. Many of these courses cannot be reproduced by a towed target with safety. If they can be simulated by a radio-controlled target, it will broaden the scope of anti-aircraft training. Preliminary investigations show as yet no favorable prospect of developing such a target at any reasonably early date. However the Board has not abandoned the idea.

PENALTIES FOR SUBMARINE MINE PRACTICES.—The Board's attention is frequently called to the fact that mine battery commanders are penalized, in their target practice, for the position components of the score, when the po-

COAST ARTILLERY ORDERS

(Covering the Period July 1 to August 31, 1935)

Promotion orders omitted.

Colonel M. P. Andruss, retired, July 31, due to physical disability.

Colonel F. K. Ferguson, from 62d, Ft. Totten, to Org. Res. 1st Corps Area, Hartford, Oct. 1.

Colonel A. L. Fuller, from 13th, Ft. Barrancas, to Ft. Hayes, Oct. 10.

Lieutenant Colonel R. E. Haines, from office Chief of Coast Artillery, to Hawaii, sailing New York, October 10.

Lieutenant Colonel E. L. Kelly, from Fordham University, New York, to 3d, Ft. Rosecrans.

Lieutenant Colonel R. R. Welshmer, transferred from Coast Artillery Corps to Infantry and assigned to 8th, Ft. Moultrie, August 9.

Major H. G. Archibald, from 6th, Ft. Winfield Scott, to St. Ignatius High School, San Francisco.

Major J. C. Bates, from 6th, Ft. Winfield Scott, to Sacramento High School, Sacramento.

Major A. C. Chesledon, from the Philippines to Mississippi State College, State College.

Major J. G. Devine, from Hawaii, to Denver High School, Denver. Previous orders revoked.

Major J. P. Kohn, to duty P.M.S.&T. Fordham University, August 1. Previous orders amended.

Major P. P. Lowry, from 2nd, Ft. Monroe, to Org. Res. 3d Corps Area, Ft. Monroe.

Major W. L. McMorris, from 61st, Ft. Sheridan, to Columbia College, Dubuque, Iowa.

Major C. F. Maguire to home and await retirement.

Major H. E. Pendleton, from 62d, Ft. Totten, to William Chrisman High School Independence, Mo.

Major E. H. Stillman, from 14th, Ft. Worden, to Logan Senior High School, Logan.

Major R. E. Turley, from 51st, Ft. Monroe, to instructor, Infantry School, Ft. Benning.

Major J. deB. Walbach, from the Philippines, to 52d, Ft. Hancock.

Captain B. B. Blair, retired, on account of physical disability, August 31.

Captain Maitland Bottoms, from 52d, Ft. Hancock, to Ball High School, Galveston.

Captain G. W. Brent, from 13th, Ft. Barrancas, to Cliff High School, Opelika, Ala.

Captain J. M. Cole, retired, on account of physical disability, August 31.

Captain Mario Cordero, from 11th, Ft. H. G. Wright, to Pearl River College, Poplarville, Miss.

Captain E. R. Crowell, from University of Alabama, University, to Hawaii, sailing New York July 30.

Captain J. D. Devine, from Hawaii, to 3d, Ft. MacArthur.

Captain A. W. Gower, from Panama, to recruiting duty, New York, N. Y.

Captain E. R. Percy, retired, on account of physical disability, August 31.

Captain E. L. Supple, from Hawaii, to 10th, Ft. Adams. Previous orders revoked.

First Lieutenant L. H. Brownlee, from 6th, Ft. Winfield Scott, to U.S.M.A., West Point, August 25.

First Lieutenant J. H. Featherston, from 52d, Ft. Monroe, to student, Advanced Technical Course, C. A. School, Ft. Monroe, August 26.

First Lieutenant R. T. Frederick, from 6th, Ft. Winfield Scott, July 1.

First Lieutenant B. D. Gill, from student, C. A. School, Ft. Monroe, to 52d, Ft. Hancock. Previous orders amended.

First Lieutenant M. J. McKinney, from student, C. A. School, Ft. Monroe, to 10th, Ft. Adams.

First Lieutenant W. L. McNamee, from student, C. A. School, to student Advanced Technical Course, C. A. School, Ft. Monroe. Previous orders revoked.

First Lieutenant L. M. Morton, from instructor, C. A. School, Ft. Monroe, to detail in Quartermaster Corps and duty with Motor Repair Bn., Holabird Quartermaster Depot, Baltimore, September 1. Previous orders revoked.

First Lieutenant P. D. Peery, retired, on account of disability, August 31.

First Lieutenant M. W. Tracy, from student C. A. School, Ft. Monroe, to 2d, Ft. Monroe. Previous orders amended.

First Lieutenant W. M. Vestal, from 63d, Ft. MacArthur, to Hawaii, sailing San Francisco, October 17.

First Lieutenant T. L. Waters, from Hawaii to 11th, Ft. H. G. Wright.

Second Lieutenant J. B. Ackerman, transferred from Coast Artillery Corps to Air Corps, August 9.

Second Lieutenant John Alfrey, assigned to 14th, Ft. Worden.

Second Lieutenant Alired Ashman, assigned to 6th, Ft. Winfield Scott.

Second Lieutenant W. H. Baynes, assigned to 51st, Ft. Monroe.

Second Lieutenant H. R. Boyd, from 11th, Ft. H. G. Wright, to U.S.M.A., West Point, August 25.

Second Lieutenant R. C. Boys, assigned to 11th, Ft. H. G. Wright.

Second Lieutenant H. B. Cooper, Jr., from Hawaii, to 11th, Ft. H. G. Wright.

Second Lieutenant C. J. Diestel, from 11th, Ft. H. G. Wright, to U.S.M.A., West Point, August 25.

Second Lieutenant J. M. Donohue, assigned to 11th, Ft. H. G. Wright.

Second Lieutenant C. B. Duff, from 11th, Ft. H. G. Wright, to U.S.M.A., West Point, August 25.

Second Lieutenant S. W. Foote, assigned to 63d, Ft. MacArthur.

Second Lieutenant R. E. Frith, Jr., assigned to 69th, Ft. Crockett.

Second Lieutenant H. R. Greenlee, Jr., assigned to 2d, Ft. Monroe.

Second Lieutenant H. R. Hale, assigned to 51st, Ft. Monroe.

Second Lieutenant R. M. Hardy, assigned to 14th, Ft. Worden.

Second Lieutenant H. J. Harrison, assigned to 51st, Ft. Monroe, Va.

Second Lieutenant C. J. Hauck, Jr., from 2d, Ft. Monroe, to U.S.M.A., West Point, August 25.

Second Lieutenant C. C. Haug, assigned to 62d, Ft. MacArthur.

Second Lieutenant C. W. Hildebrandt, assigned to 2d, Ft. Monroe.

Second Lieutenant A. W. Lyon, Coast Artillery Corps, transferred to Quartermaster Corps, June 19.

Second Lieutenant H. G. McFeely, from Hawaii, to 63d, Ft. MacArthur.

Second Lieutenant F. M. McGoldrick, assigned to 52d, Ft. Monroe.

Second Lieutenant R. M. Miner, assigned to 6th, Ft. Winfield Scott.

Second Lieutenant J. C. Moore, assigned to 51st, Ft. Monroe.

Second Lieutenant J. B. Morgan, assigned to 52d, Ft. Monroe.

Second Lieutenant Robert Morris, assigned to 52d, Ft. Hancock.

Second Lieutenant W. R. Murrin, assigned to 52d, Ft. Hancock.

Second Lieutenant E. W. Niles, assigned to 13th, Ft. Barrancas.

Second Lieutenant R. A. Pillivant, assigned to 61st, Ft. Sheridan.

Second Lieutenant J. S. Piam, from 51st, Ft. Monroe, to Hawaii, sailing New York, November 1.

Second Lieutenant F. B. Reybold, assigned to 52d, Ft. Monroe.

Second Lieutenant A. D. Robbins, assigned to 62d, Ft. Totten.

Second Lieutenant W. G. Root, assigned to 61st, Ft. Sheridan.

Second Lieutenant K. R. Schweidel, assigned to Hawaii, sailing San Francisco, November 23.

Second Lieutenant N. A. Skinrood, to 52d, Ft. Monroe.

Second Lieutenant R. S. Spangler, from 52d, Ft. Hancock, to U.S.M.A., West Point, August 25.

Second Lieutenant S. G. Spring, assigned to 2d, Ft. Monroe.

Second Lieutenant J. J. Stark, from 6th, Ft. Winfield Scott, to Hawaii, sailing San Francisco, October 17.

Second Lieutenant J. D. Stevens, from 2d, Ft. Monroe, to Hawaii, sailing New York, October 10.

Second Lieutenant P. B. Stiness, from 10th, Ft. Adams, to U.S.M.A., West Point, August 25.

Second Lieutenant E. H. Walter, assigned to 52d, Ft. Monroe.

Second Lieutenant B. S. Waterman, assigned to 2d, Ft. Monroe.

Second Lieutenant S. L. Weld, Jr., assigned to 62d, Ft. Totten.

Second Lieutenant G. R. Wilkins, assigned to 13th, Ft. Barrancas.

Second Lieutenant H. P. VanOrmer, assigned to 2d, Ft. Monroe.

Master Sergeant Harry Jagendorf, 15th, Ft. Ruger, retired, rank of Second Lieutenant, July 31.

BOOK REVIEWS

THE CASE FOR MANCHUKUO. By George Bronson Rea, Counsellor to the Ministry of Foreign Affairs, Government of Manchukuo. D. Appleton-Century Company. 425 pages. \$3.50.

Reviewed by Major General H. D. Todd, Jr., Retired

Mr. Rea presents the case for Manchukuo as would a lawyer before a court. His argument is most interesting, most instructive and to many Americans it presents a side of the case totally different from what they have believed to be true.

The essence of his argument lies in the following statements: "Now one group of these Chinese who constitute a race but not a nation has broken away completely from its fellows. Manchukuo has cut loose from the chaos, the carnage, the anarchy that is China and set up an independent government for itself. It has called upon Japan to help it maintain that government." "I believe that the protection Japan is extending to Manchukuo gives it its only chance of happiness. I believe that Japan's action is to be commended."

It is natural to ask who is this man. Mr. Rea is an American who has lived in the Orient for more than thirty years. He is an engineer by training who was, he tells us, precipitated because of the Cuban revolution into the rôle of war correspondent. He was the first newspaperman to reach the Maine after she was sunk. As engineer and journalist he established in Manila in 1904 and in Shanghai the following year the Far Eastern Review. When Dr. Sun Yat-sen was empowered by President Yuan Shih-kai to organize a National Railway Corporation to finance and construct a national system of communications for China, Mr. Rea became his adviser. At the Paris Peace Conference he was called in as Technical Secretary to the Chinese Delegation to draft another construction for the new consortium to work on, and in general Mr. Rea had "intrusted to him by the Chinese, financial missions involving half a billion to a billion dollars, the drafting and carrying out of plans for the safety of the State, consolidation of its governmental power, for its financial independence and the conservation of its sovereign rights, the highest honor and mark of confidence ever reposed in any foreigner."

It is clear therefore that the author's argument for Manchukuo should receive careful consideration.

To those Americans who have been brought up with the idea that we should make every effort, if not go to war, to maintain the open door in China, the chapter on "The Open Door Myth," will prove a surprise if not a shock. We read that for every dollar of profit taken out in trade we hand back one and a half if not two, for charity, and that the balance sheet of our trade with China

will show that against an annual profit of \$10,000,000 we pay out about \$75,000,000. Again "although the investments of Britain in China are thirteen times greater than the American, those of Japan ten times and the Franco-Belgo stake eight times, representing a total of four billion dollars, thirty times greater than our commercial stake of \$130,000,000, we have taken upon ourselves the task of maintaining the Open Door and become sponsor for a treaty embodying and perpetuating the principle of the territorial and administrative independence of an undefined state which may some day send us to war."

Throughout the book is a line of reasoning intended to prove that China is not a nation; that Manchukuo is not Chinese, but Manchu; that Japan acted in self-defense when her army as a result of a minor explosion on the tracks of the Japanese government-owned South Manchurian Railway occupied more territory in a single night and with fewer losses than has any army in modern history; that the formation of the government of Manchukuo was due to the intense desire of the people of that area to be independent of any Chinese control, and finally that there is no logical reason for the United States to clash with Japan.

The chapter on "The War Plot" will introduce Americans to what went on behind the scenes during and shortly after the end of the World War in reference to our relations with China and Japan. The discussion follows the statement, "The only belligerent nations that emerged from the World War with profit were the United States and Japan. Could these two nations have been prodded into a war in the Pacific immediately after the signing of peace, these profits would have rolled back to where they came from."

In reference to the League Commission of Enquiry which investigated conditions in Manchukuo, the author claims that "the case of Manchukuo has been tried in a court from which there is no appeal. The defendant has been convicted and sentenced by a group of judges interested in the case, interpreting its own laws and applying its own procedure." His argument is impressive and again illustrates the fact that there are two sides to every question. Mr. Rea takes decided issue with the decision of the League that sovereignty over Manchuria belongs to China and here again the reader would require a strong argument from the League before disagreeing with the text. Particularly convincing in favor of the author is the Abdication Agreements between the Republic of China and the Manchu Emperor, the Manchu Princes and the Bannerman. These Agreements the Manchurians consider the "supreme law overriding all treaties that may have been subsequently entered into between the Republic and Foreign Powers." The discussion of the relations

between Soviet Russia and Japan are most interesting, and Americans should carefully consider the question of their attitude in case of a Russo-Japanese war.

The argument for Japan in this matter is well presented, and the Russian policy since the days of Peter the Great whose will is given as an appendix deserves careful study.

While many will not entirely approve of Mr. Rea's line of reasoning with respect to the policies and operations during recent years in China of Japan's military forces, it is believed that the average reader will be convinced that the book presents a strong case for Manchukuo.

SPY. By Bernard Newman. D. Appleton-Century, New York. 284 pages. \$2.50.

Reviewed by Second Lieutenant John Stanley, MI-Res.

Mr. Newman begins his introduction by declaring that "it is high time that this spy business is debunked"; then he goes on to say that, by profession an actor, he had enlisted as a dispatch-rider and within a year had become intelligence officer for a British division. Six months later he was trusted aide to von Falkenhayn on the German Great General Staff and weekly interviewed the Kaiser. In an odd moment he had returned to England and with spectacular success managed to save the life of the Prime Minister, David Lloyd George. Before the war ended he was confidential assistant to Ludendorff and infers that he, Newman, hastened the armistice by breaking down the morale of the German High Command.

Captain Newman may not be a convincing writer, but he is interesting; perhaps he did penetrate the German lines and blow up an enemy troop train and was captured and sentenced to be shot. Perhaps he did escape by dyeing his hair with ink and making use of a hastily improvised moustache with the helpful services of a patriotic (and handsome) French girl. Perhaps, too, he was with Falkenhayn and Hindenburg and Ludendorff and the Kaiser and was able occasionally to report to the English War Office in person as to happenings at German GHQ. It will may be.

The author was, in blood, half German, and when an enemy cousin was captured and sent to English prison, Captain Newman took his place and with a young German naval officer escaped by submarine to Wilhelmshaven and Berlin—where only short weeks after the King of England presented the DSO, his cousin of Germany pinned on the Iron Cross. Bernard Newman had become Adolf Neumann and deceived not only his official superiors but his cousin Adolf's own family—even his mother, his father, and his mistress. It is a strange story he tells.

All men in the late war who had to do with the collection of enemy intelligence are one in criticising their superiors for disregarding information so painstakingly gathered and presented for their guidance. The German Command refused to believe the story of the British tank; Captain Newman sent to London von Falkenhayn's confidential report to his emperor foretelling the siege of Verdun and this, "one of the most complete disclosures

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of the whole war" was scarcely read by Joffre and was most certainly ignored by all. "Actually," says the author, "perhaps it was fortunate for me that I did not find out until after the war that the greater part of the warnings which I sent over—always at the greatest risk to my life—were disregarded. Had I known this I would not have been quite so ready to hazard my neck."

After serving on both sides, and in a position to know, Captain Newman infers all through his book that the German army as a whole was the better officered, and he joins with Robert Graves in complaining of the treatment shown him by the English regulars when, a young subaltern, he first joined his regiment—and when he put in for his three years pay he could laugh at the decision of the English War Office that he should receive only the difference between what he was paid by Germany and what he would have earned as an English officer.

THE ROAD TO WAR: AMERICA, 1914-17. By Walter Millis. Houghton Mifflin Company, Boston, 1935. \$3.00.

In this work the author of *The Martial Spirit* has set down a clear and impartial history of the diplomatic events that culminated in our entry into the World War—from the birth of The New Freedom to the Declaration of War. Some of this history we know from the official diplomatic correspondence and post-war writings of statesmen, but it has remained for Mr. Millis to enable us to look back with twenty years' perspective and see ourselves as we really were. In spite of our declaration we were never neutral, through our economic support of the Allies. Influenced by British propaganda, we never sympathized with the case for the Central Powers, and even allowed ourselves to become indifferent to British infringement of our rights as a neutral nation. Looking back upon this frenzied sea of emotion we can at last learn what actually happened. After twenty years we have the true story of that fantastic period when America made its last journey along the road to war.

This book reads more like a gripping novel than a history of diplomacy. The author is adept at humor and irony, and his skill is readily discernable in his analyses of the actions and words of our statesmen and diplomats. He shows that Wilson never had been interested in international affairs. Bryan never had a detailed understanding of the intricate issues by which he was surrounded. House trotted from one European capital to another, with what appears now "a strong suggestion of innocence in a den of suspicious gangsters." He and Walter Page were the easy victims of British wiles.

This book should be read by every thinking American, for *The Road to War* recaptures the atmosphere of the days when a peace-loving democracy, muddled but excited, misinformed and whipped to frenzy, embarked upon its greatest war. The appearance of this work is timely, for with the war clouds gathering over Europe we are asking ourselves if America will keep out of the next war.—N. J. A.